# THE BUILDER

## A Journal for the Architect & Constructor

JUNE 14, 1929 — No. 4506


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**Published every Friday**

**THE BUILDER LIMITED**

**CATHERINE STREET AND YORK STREET, ALDWYCH, LONDON, W.C.2**

*Telephone : Temple Bar 6251-2*

**87TH YEAR**

By courtesy of Messrs. H. T. Batsford.

**Burton Agnes Hall : The Staircase.**

# THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

*WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."*

VOL. CXXXVI. No. 4506 JUNE 14, 1929

## A NEW SPIRIT IN BUILDING

A CHANGE of Government probably meant nothing to the architect of the Parthenon. The Rebellion, the Commonwealth, the Restoration, the Revolution, and the accession of the House of Hanover were among the many events through which Sir Christopher Wren lived. To the busy architect, absorbed in his work, and interested in the abstract qualities of his art, there are no barriers in contemporary history. At the moment our national life seems to be honeycombed with petty divisions. The momentous questions of what are called Capital and Labour seem to have over-shadowed every other question and divided us against our will into artificial sections of society. The spirit of the coterie is pernicious when the general good is sacrificed to its own supposed interests. Judged by this standard any Government, no matter under what name it desires to be known, can take a heavy toll of architecture. For several years various Governments have been interested in architecture, or perhaps it would be more correct to say that they approached an economic and social subject from the business end, and then only out of necessity. Ministers, in their leisure moments, have given us many delightful passages upon our glorious architectural traditions and heritage, and upon what this means to a nation. Yet the truth is that domestic architecture has, on the whole, been drifting backwards steadily during the last decade. Economy, as the stark enemy, has not only given us much mean building, but it has made us avoid or limit our responsibilities in building wherever possible.

It is not our intention here to open a discussion upon political policies which may or may not include housing shortage, economic policies, and slum clearance. Our point is that great rewards await any Government which, by giving up the spirit of the coterie, will regard housing and architecture with a totally different mind. In brief, we would like to see house-building encouraged for everyone, and we would like to see this brought about by the relief of burdens upon house ownership. The whole weary business of subsidies, whether they should be decreased or increased, is tiresome, and, from our point of view, trivial. They have simply introduced a speculative economic counter into the art of building, and there is ample evidence to show that it has been introduced at the wrong end. Setting aside for the moment the reasons why subsidies should be necessary, we can safely assert that any house owner or builder who benefits from the subsidy would rather have his annual burdens relieved than fool himself with the idea that he has got the benefit of an initial subsidy; or, to put it otherwise, if the subsidy is in the nature of a bait, the penalties are too heavy.

We wonder here whether it is necessary to catalogue the ever-increasing list of financial responsibilities which have centred upon the unfortunate owner of a house. Our justification of the word "unfortunate" can hardly be objected to if we live in an age when it has come to be regarded as a man's own foolishness if he accepts responsibilities for building a house when he can get the State to accept them. Besides there are other things much more attractive and much less irksome than the building of houses. Legal charges, stamp fees, income tax, rates, road, street and water dues, are only a few of the charges which come to mind. Even the petrol for the electric generating plant pays its due for some unknown reason. There are laws in existence in this country necessitating the owner to remove the roof from an empty house if he wishes to avoid paying his rates and taxes. Could anything be more absurd? The crowning folly (perhaps it is the result) is that a few guineas extra is grudged for the architect to design a decent-looking house. We could save this money in valuable time if it were no longer necessary to write to the papers complaining that our motor runs were becoming impossible by reason of the spread of ugly dwellings.

Obviously the economist would reply that any financial burdens removed from house-owners would require to be met by revenue from some other source. With this we agree: this is precisely what we are doing now by granting subsidies. The only difference is that, while no two people agree about what happens to the subsidy, we do know where we are if our income-tax were reduced on our houses. The money all comes from the same source. And, incidentally, while we are upon this point, it is never too clear why a man should be able to spend two thousand pounds upon, say, a motor car and pay no income-tax, and another man should pay income-tax on his two-thousand pound house. We merely select this item at random: our point is rather that there are many methods of relieving the burden of house-ownership and encouraging the art of building. It is in essence a question of whether we should build and own houses—things that are necessary—or direct our attention to other things that may not be necessary. Further, if any of the burdens we have mentioned were removed to take the place of subsidies, the building industry would be safeguarded from a great deal of odium. This in itself is a matter of no small moment.

If we wish to see a nation happy in its own houses, and an architecture worthy of our great tradition, it can only come about if a new spirit is breathed into our legislature. It is this spirit which is lacking to-day, when men and women group themselves by narrow interests. The social reformer sees only a small side of his subject. The appeal of the slums, the lure of the movement of the worker from the city to the country, are all scheduled, yet the plain matter of fact causes that slow down the demand for houses are passed by. If we could make a beginning at the proper end on the lines we suggest, we venture to prophesy that many of the other problems would simplify themselves. It is our privilege and our pleasure to regard the art of building as a whole, and as a consequence we have little sympathy with those parochial remedies which merely shift a burden from one class to another. By this we simply mean that no class of building should be penalised or should carry the burdens of another class. We might even say that the spirit of the coterie can prevail in other fields where it does not matter; but the art of building, unless it contributes to the national well-being, is the dead art of the parish pump under the name of progress and comfort.

These are our two counts: that the art of building, and particularly, house building, should be encouraged for every one, without distinction, and that the existing burdens upon house ownership should be relieved. We have no cut-and-dried theory upon any particular burden which should be singled out for attack, but no doubt there are many who have very definite theories upon this matter. At least, one thing is certain: there are plenty of burdens from which to make a selection to lighten the load. One might, for instance, point out, in a democratic age, that, although we have now very definite theories upon the number of houses to the acre, we have done nothing to help the prospective house-owner to buy his land at a figure which does not make our theories a farce. We leave it to our readers to think of others. We repeat that great rewards await any Government that will breathe a new spirit into the art of building.

# NOTES

**The Institute Premises.**

WE understand that it has now been definitely decided that there shall be an open competition of designs for the new Institute premises, and whilst we feel that this will meet the wishes of an overwhelming majority of the profession, and that it is the right scheme, we can well understand the strongly expressed views of those against it. We can only hope that in its conduct the competition may lead to the selection of a worthy design, and that there will be no ambiguity about conditions or suggestions, and preferably no suggestions at all. Obviously the competition will be open to members of the Institute only. The occasion being so exceptional there can be little doubt that the competition will attract the ablest members of the profession.

**The R.I.B.A. Form of Contract.**

WE are informed that on Monday last, at the fifteenth general meeting (business) of the session of the R.I.B.A., it was made evident that many of those present had been mainly attracted by two items—(1) The Council's proposals for the revision of the R.I.B.A. Scale of Professional Charges; (2) The adjourned discussion on the R.I.B.A. new Standard Form of Building Contract. Little headway was made in the consideration of the scale of charges, but no doubt there will be some issue of practical value, in the near future, when the proposals are further considered and settled. The attention of the meeting was then, by special desire of those present, directed to the important question of the new Standard Form of Building Contract. No attempt was made to consider the merits and demerits of the form of contract itself, and after discussion, it was finally rejected.

**What is a "Bungalow"?**

IT is perhaps surprising that with the enormously growing popularity of what are known as "bungalows," there has been no judicial decision until now of what kind of building is indicated under this description. The matter has now come before the courts in the case of Ward *v.* Patterson (see page 1089) in connection with land sold subject to a covenant not to erect thereon more than one "bungalow." The plaintiff who had conveyed the land to the defendant subject to this covenant, sought to restrain the defendant from erecting a building of more than one story on the land as it was alleged that such a building had been commenced and it would interfere with her view. For the plaintiff it was argued that the word "bungalow" was an ordinary English word of which the Court could take judicial cognisance, and that if the court felt any doubt the dictionaries could be consulted. The Court, however, held that the word was not an English word but an Indian word which was used here as indicating a building which had some particular and distinctive features and, moreover, pointed out that the dictionaries were not unanimous, although the majority of them would appear to take the view that a bungalow was a one-story building. In the result the Court accepted the definition which the defendant's experts had given, fortified by expressions and illustrations contained in Mr. R. A. Brigg's work, "Bungalows and Country Residences," and other technical literature used in the profession, that a "bungalow" was a building of which the walls, with the exception of any gables, went not higher than the ground floor, and of which the roof started at a point not substantially higher than the top of the wall of the ground floor, and that it did not matter in what manner the spare loft in the roof of the building so constructed was utilised. Having regard to the vast majority of the bungalows that have been constructed during the past few years throughout the country with some space in the roof, we think this definition will be received with satisfaction. The Court stated that even the plaintiff's architects were not agreed that a bungalow was necessarily a building of one story only as they suggested that there might be included in the roof a room or rooms provided that they were not inhabited and this appears to us an impossible limitation to have accepted, quite incapable of being enforced in practice whereas the definition adopted by the Court provides a good and practical working rule. By-laws should prevent unsuitable spaces being used for the purposes of habitation.

**Good Window Design.**

IT is seldom that when asked to inspect examples of craftsmanship we have been so pleased as we were with a visit to the windows which are being sent to the French Memorial Chapel in Notre Dame de Lorette, facing Vimy Ridge. There are to be three windows in each transept end, one group with Joan of Arc as the central figure and the other with Saint George. They are all admirable examples of coloured windows the Saint George group being one of the

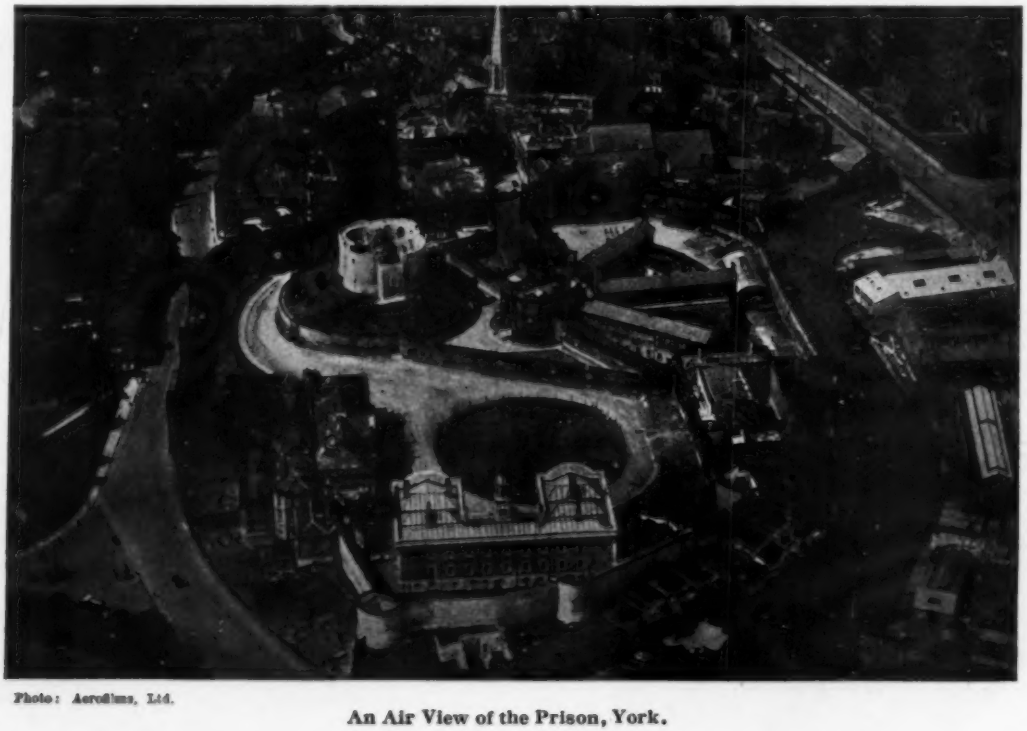


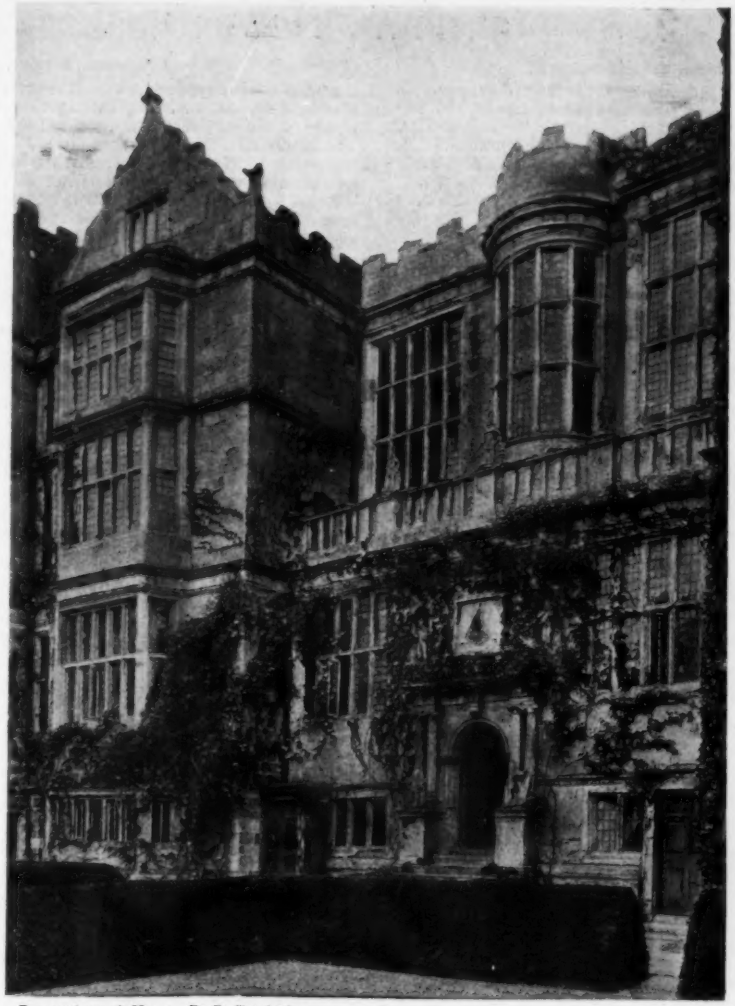
Photo: Aerofilms, Ltd.

**An Air View of the Prison, York.**

most brilliant pieces of glass work we can remember to have seen. The quality of colour, the delightful detail, and the fine breadth of treatment, give it a striking and singular charm, and Mr. Henry A. Payne, R.W.S., is to be congratulated on having designed and made such work, showing that the art of the stained-glass artist is alive with possibilities to-day.

**Housing Problems.** THE Westminster Survey Group has just issued another of its housing reports. It is certainly a very terrible indictment of housing conditions in Southwark. The local Medical Officer of Health pillories ten thousand houses. "In practice the Housing Acts simply break down." The Corporation of the City of London is specifically named as the owner of defective property. The whole residential conditions of the Borough of Southwark point to its being the most overcrowded part of London. Immediate public interest will undoubtedly centre upon the statement that "the defective condition of publicly-owned property goes far to undermine the general morale of Southwark landlordism as a whole." The conclusion of the report is that "until the Ministry of Health asserts its powers, the position will drift from bad to worse."

**Studentships in Building Service.** IT is of special interest to note that in conjunction with the Department of Scientific and Industrial Research the Institute of Builders offers studentships to those who propose to seek a career in the building industry. The object of the studentship scheme is to accept the offer kindly made to the Institute by the Department to give selected men facilities for coming into direct association with a building research centre, and to ensure as far as possible that the knowledge and experience they acquire in this way is at the service of the industry. The studentships will be tenable at the Government Building Research Station, Garston, near Watford, Herts, and will range in value from £50 to £150 per annum for two years. The students will be given the opportunity of gaining experience in the laboratories dealing with specific materials, with weathering problems and with general testing. Thus, in the first year, time will be spent on the following subjects: (1) Cement, concrete and reinforced concrete; (2) Limes and plasters; (3) Clay products; (4) Structural testing and examination of physical and chemical properties of materials; (5) Weathering problems. During the second year the students will be attached to the Special Inquiries and Investigations Section and will learn the application of the laboratory side to practical difficulties, and how to write and interpret reports. Students must give an undertaking to the Institute of Builders that they will remain in the building industry for at least five years after the completion of the studentship course. They must also agree to sit for the examinations necessary for the Associateship of the Institute of Builders, and, when qualified, to apply for Membership of the Institute. Candidates for these studentships should apply to the Secretary of the Institute of Builders at 48, Bedford Square, London, W.C.1, for the necessary application form.



By courtesy of Messrs. B. T. Batsford.

**Fountains Hall, Near Ripon.**

**The Abbey Sacristy.** SINCE our last issue, a striking commentary on the Abbey Sacristy controversy has appeared in "The Times," from Mr. Reginald Hallward, and this we publish on p. 1085. A good deal of strong feeling exists on the subject, and there have been so many opinions expressed of doubtful value that we have pleasure in calling attention to what appears to us to be a sane and useful contribution on the matter.

**Montacute House.** MONTACUTE HOUSE, as our readers know, is one of our finest old country houses, and it is now in the market. What is to be its fate? Such buildings are a national asset and the only chance of their preservation is possibly their adaptation as institutions of some kind. We see continually the records of wills which suggest legacies which would enable those enriched thereby to occupy such beautiful old houses, but the opportunities are not taken advantage of. The loss of a fine sixteenth century house is sad and irremediable.

**The American Institute of Architects.** WE note with pleasure that the President and Board of Directors of the American Institute of Architects have elected Dr. Raymond Unwin Honorary Corresponding Member of the American Institute.

**Boycotting Ugliness.** DURING a journey through West Surrey, we noticed recently that the artistic standard of petrol filling stations is improving. Two that we came upon had their pumps painted a uniform dark olive green and decently housed. In these days, when filling stations are so frequent in number, motorists would do a very real good if they made a point of calling at only those stations which have made an attempt to consider amenity.

# GENERAL NEWS

**Professional Announcements.**

Mr. R. Bradbury, surveyor to the Rotherham Rural District Council, has retired from the position and his duties will be undertaken by Mr. F. H. Boland, of Oldham. Mr. Bradbury's appointment with the Rotherham Rural District Council dates from March, 1895, so that during his period of service he has seen great developments in the area which has come within the scope of his duties.

The Derby Town Council have made the following appointments to the Borough Architects' Department, as required by Mr. C. H. Aslin, A.R.I.B.A., Borough Architect and Surveyor:—As senior architectural assistant, Mr. A. G. Walker, A.R.I.B.A., Northampton; as architectural assistant, Mr. C. C. Bowring, Birmingham; as quantity surveyor, Mr. H. Sugden, Leicester.

Sir E. Owen Williams is appointed consulting engineer in connection with the proposed new Wakefield Bridge. Negotiations are in progress between the Corporation and the Aire and Calder Navigation Co., Ltd.

Mr. J. S. Hockley, A.I.A.S., incorporated quantity surveyor, has taken into partnership Mr. W. H. Chamberlin, an architect from Australia, and the firm will in future practise as surveyors and architects at 61, High-road, Wood Green.

**The Royal Fine Art Commission.**

It is announced that the King has appointed Mr. Charles Ricketts, R.A., to be a member of the Royal Fine Art Commission, and has reappointed Sir Edwin Landseer Lutyens, R.A., F.R.I.B.A., who has retired on completion of his term of office.

**The County Hall: Appointment of Architect.**

We understand that the Establishment Committee of the London County Council have recommended (a) that the proportion of the commission payable to the legal representatives of the late Mr. Ralph Knott be one-fourth of the total commission that would have been payable had he completed such section of the building in accordance with the drawings upon which he was engaged at the time of his death; (b) that Mr. E. Stone Collins, F.R.I.B.A., be appointed architect for Section D of the County Hall; (c) that the arrangement whereby Mr. W. E. Riley, F.R.I.B.A., acts as official architect for the County Hall, be terminated, and that a payment of £3,250 be made to Mr. Riley in respect to services rendered by him in connection with Section D of the County Hall and the raft foundation.

**British Architects and National Service.**

Mr. Walter Tapper has issued a letter to members of the R.I.B.A., calling attention to the national services rendered by the Young Men's Christian Association. The war work of the Y.M.C.A. from 1914 to 1918 is known to everyone; what is not so fully realised is that the Association is still maintaining a programme of work that is of equal importance to the nation's youth.

In a covering document it is stated:—"It is not generally known that to-day the Y.M.C.A. are maintaining recreation centres with the British Army in many foreign centres. These centres of homeliness and good cheer mean a great deal to the troops, who are, in the main, very young lads living for the first time on foreign soil. The provision of such healthy facilities is as much the responsibility of every citizen in this country as of the Y.M.C.A. At the present time, when unemployment is widespread, the Y.M.C.A. migration scheme is another form of most valuable service. During the present year they have plans laid, and more than half carried out already, for placing one thousand lads from colliery areas in permanent jobs on Canadian farms. The national value of such work has been acknowledged by the London Stock Exchange, the Chartered and Incorporated Accountants, and members of the Bar, by generous contributions to appeals made to them on behalf of the Y.M.C.A. The architectural profession will do itself credit by standing by a movement which has rendered such signal service to the nation when it needed it most."

**Lauriston Castle, Edinburgh.**

We learn that Lauriston Castle, at Davidson's Mains, near Edinburgh, has been presented with the grounds and furnishings by Mr. William Robert Reid to the nation. It contains some rare antique furniture, vases, pictures, prints, tapestries and carpets—every room being left completely furnished. The date of the Keep is 1590, and later additions were added by Burn, the well-known Scottish architect. The Corporation of the City of Edinburgh have been appointed trustees.

**Restoration of St. Paul's: Final Stage.**

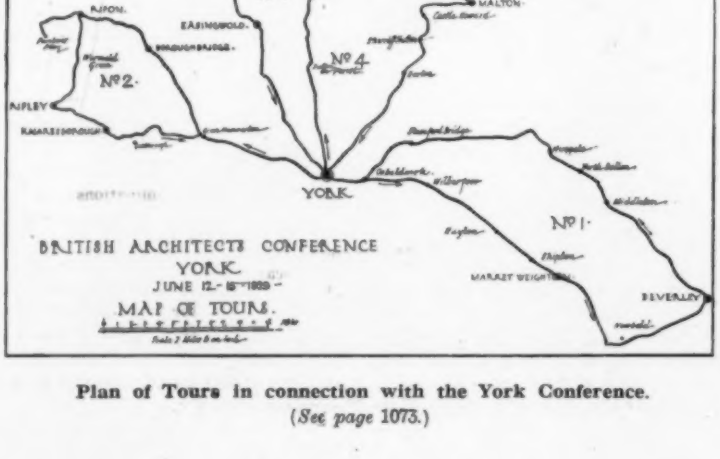
It is learnt that the final stage in the long task of restoring and renovating St. Paul's Cathedral will begin on July 1, with the removal of the great organ from the nave back to its original position in the choir, a work that is expected to occupy about four months. In addition, the refacing of the columns supporting the dome and the re-carving of some of their ornaments have to be undertaken. The work is being carried out according to programme, and the whole of it should be completed by June of next year. The work of restoration, which was directed to the strengthening and solidifying of the superstructure, was begun in 1913 on the two piers in the south transept, and when finished will have occupied about one-half of the time used in the original construction of the building. In 1924 came the serving of the "dangerous structure" notice, and the big task began in 1925 of grouting the eight main piers supporting the dome, and the placing of a chain of steel round the dome as an additional precaution, thus adding, the engineers estimate, 200 or 300 years to the life of the structure.

**Roman Remains at Folkestone.**

A section of the Roman site discovered five years ago on East Cliff, Folkestone, has been carried away by a fall of the cliff. It is learnt that the Council has decided to approach the Society for the Protection of Ancient Buildings with a request that they will bear the cost of the preservation of the Roman remains still left there.

**Mansion House: Proposal to Remove Defeated.**

A proposal which might have meant the moving of the Mansion House, the historic official residence of the Lord Mayor of London, has been decisively defeated at a recent meeting of the Court of Common Council of the City of London at the Guildhall.




**Plan of Tours in connection with the York Conference.**

(*See page* 1073.)

# COMPETITION NEWS

**Proposed Church Extensions, Tadworth.**

The Parochial Council of the Church of the Good Shepherd of Tadworth have decided to raise funds and put in hand at once the erection of an addition to their buildings, including the provision of a Parish Hall. A limited competition for designs will be held.

**Proposed Amusement Centre, Ilfracombe.**

Ilfracombe Town Council has received the report of a sub-committee which had considered the conditions upon which competitive plans should be invited for the adaptation of the west wing of the Ilfracombe Hotel Company's property on the sea-front, acquired last year, and the construction of extensions in accordance with the decisions of the Council. It was recommended that seating accommodation be provided in the Orchestral Hall for 1,500 persons, and that the cost of the whole scheme, excluding furnishings, should not exceed £15,000, and that prizes be offered for the competitive plans. The report was adopted.

**Hospitals Centre, Birmingham.**

The closing date of the limited competition for a new Hospitals Centre at Birmingham is December 31, 1929. The result of the competition will be announced as soon after this date as possible. A full list of invited competitors was given in our issue for January 25.

**Græco-Roman Museum at Alexandria.**

The following notice has been issued by the R.I.B.A.:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions."

**Proposed Municipal Buildings, Luton.**

The Tolls and Municipal Buildings Committee have recommended the Town Council to agree to erect a new Town Hall at a cost of £250,000, excluding the cost of site, but including furnishing; and that the building be devised to accommodate all the Corporation establishments except courts, police, electricity and tramways undertakings. Also that an eminent architect be selected as an assessor, and that he be consulted to advise upon the suitability or otherwise of the present Town Hall site, both as to situation and capacity.

# R.I.B.A. DEVELOPMENT SCHEME

SIR,—I have watched the successive stages of "development" of the R.I.B.A. with interest, but hardly with spellbound admiration. In the past it seemed to be a body jealous of the standing of its members and anxious to maintain a high standard. For this reason the creation of the Licentiate class was strenuously opposed by the Associates, who in the end unwillingly consented under the explicit promise that admission to the new class should cease after a given date, a promise more honoured in the breach than the observance. We wanted a fine republic of trained and educated architects, and not a mob of miscellaneous subscribers.

Now the wish is for numbers, and not qualifications, and it is suggested that the Council should exercise more authority, to be given up by the members of the R.I.B.A. Why should we be asked to divest ourselves of power by degrees? Would it not be best for us to pass a short resolution giving each Council a right of electing its successor without any reference to the general body?

Maeterlinck has a theory that the bee and the termite are but individual parts of an everlasting type possessing an immortal corporate soul. May this not be the case with architects? The Council would represent the soul and brain. Thinking for the herd and dividing the loaves and fishes, the remainder of us need not even be called workers, but simply subscribers. Run on these simple Socialistic lines, the Institute might admit everyone who was willing to pay; we should not have responsibilities we are unfit to exercise. A simple form of prayer to the Council, and a short creed expressing profound belief in its wisdom, is all that would be needed. Do not let us patch, but do the thing well at once.

HERBERT W. WILLS.

SIR,—Mr. E. Stanley Hall need not be surprised to find opposition amongst the Associates. Of the total membership of the R.I.B.A., the Associates have all been examined, the Fellows not much more than half, and the Licentiates not at all. There is nothing "obscure" about the Associates' opposition except to those who refuse their point of view.

Mr. Hall's given reasons for his support of the present proposals are merely sentimental. The real object of the proposals appears to be a Bigger Institute—for some obscure reason.

ASSOCIATE R.I.B.A.

SIR,—The proposal to extend the R.I.B.A. by admitting more Licentiates is bound to receive some opposition from the Associates on the ground that so far as public opinion is concerned, the work they put in—at no little expense and anxiety—is practically thrown away. Personally I share this opinion, and, further, I do not see why members of the Institute who have become so by election and not by examination should use letters which imply that they have gained some diploma or degree any more than members of the Allied Societies should use the initials of their respective Societies for the same purpose.

I think, therefore, that all opposition from the Associate class would be withdrawn if the Institute were to allow only such members—except in very special cases—who passed the examinations to use any letters whatever. Should this suggestion receive opposition I think it would but confirm the right of the Associate class to vote against proposed extension.

ASSOCIATE.

SIR,—With regard to the circular letter from the President of the R.I.B.A., one cannot but be interested in this and Mr. Hall's address at the Institute, inasmuch as they call upon one to signify by a stroke of the pen that the action of the Institute may not be taken as in the best interests of the profession. Under the impression that the Charter of 1909 would be carried out, many who considered themselves qualified to do so joined the R.I.B.A. in a good cause. This, unfortunately or otherwise, was amended by the Charter of 1925, whereby members of the Society of Architects were joined, the resources of the R.I.B.A. being probably doubled. According to this Charter no other opportunity was to be given for admittance to the Institute without examination.

We were entitled to be called Chartered Architects, but whether this privilege had any substance in fact is surely a moot point. It is common knowledge that through their "Journal" members of the Society of Architects were strongly advised to become Fellows before a certain date, in which case they automatically became Fellows of the R.I.B.A.; those who refrained automatically became Licentiates. The point, then, is this: Many Licentiates refrained from membership of the Society of Architects but willingly joined the R.I.B.A. on the strength of the 1909 Charter; this has been amended, for good reasons no doubt, and the public were to know their architects as "Chartered Architects"—architects the public could trust; other architects didn't count.

What comes before us now? Another suggested Charter by which, apparently, anybody who can, with a set and tee-square, draw a plan for a house, garage and so forth, or who can, by judicious advertisement, influence the innocent public (see enclosures) who, knowing no better, pay for work which, according to the Press and various good-intentioned societies, are destroying the amenities and beauties of the countryside.

If these men can do no better work than they are now doing, will membership of the R.I.B.A. improve it? Are land agents, auctioneers, builders, furniture dealers, and odd men, being invited to join a self-respecting body of professional men under the impression that once brought in they will "come to heel"? One can hardly think so. Having regard to the present position, which appears to be the building of new Institute premises, one is rather inclined to come to the conclusion that it is not altogether the men who are wanted, but their fees; the quality of architecture will remain the same, and if these men have not of their own accord joined up before, why ask then to now? The cuttings previously referred to ought to show.

ARCHITECT.

[The newspaper cuttings which our correspondent encloses fully bear out his contentions.—ED.]

SIR,—The judicious terms of Mr. Stanley Hall's explanatory statement regarding the above, in your issue of June 7, can only cause professional men of long standing who, like myself, are not members of the Royal Institute, to wonder what has prevented the Council of the Institute from realising these potent facts at a much earlier date.

There can be little doubt that the carrying into effect of the Council's proposals, given adequate investigation in each individual case, would immensely and permanently strengthen the position and prestige of the Royal Institute, while serving to diminish the numerical strength of those whose apprehensions have hitherto prompted them to oppose the Registration Bill.

Despite a certain scepticism in your leading article of January 4, the almost unanimous approval of the Allied Societies was, from the inception of these proposals, a foregone conclusion.

EDMUND WARE.

SIR,—We are again, apparently, in the throes of a controversy regarding the admission of professional brethren within the sacred fold of the Institute, and presumably the opposition once more arises from the examined class, namely, the Associates. As one who formerly held an appointment as "tame architect" to a local authority, I opposed in the past admission to the Institute except by means of an examination; but engaging in private practice has brought seasoned wisdom in its trail, in that I realise that a list of qualifications appended to one's name does not bring "grist to the mill"—in fact, its utility is negligible.

But is the Institute honest in its intentions? Is the concern for our poor unfortunate brethren "beyond the pale," or for the increased revenue which will doubtless accrue therefrom? I fear the latter. Prior to the adsorption of that virile body, the "Society of Architects," the Institute had expended a goodly sum on the provision of a "lecture hall," and we are now having a repetition by the Institute committing itself to the erection of new premises prior to an intended absorption of outsiders.

I venture to suggest that opposition to the safe passage of the Bill could be overcome by agreement with those professional bodies concerned to be absorbed when and after such Bill became law.

Finally, I would ask our Associate class to refrain from dwelling on the "entry by examination" attitude. The Associate (War Special) examination will doubtless go down to posterity as an example of a glaring travesty of the same, and as a method of increasing the revenue of the Institute. I would commend the Institute's attention to a revision of the annual subscription, so as to lessen the load which private practitioners are supporting through these parlous times.

ARBEE.

SIR,—I would like to ask, What is the value of the R.I.B.A. qualification to-day? The Fellows, Associates and Licentiates are alike equally Chartered Architects and full corporate members of the Institute. The difference consists solely in the initial letter applicable to each class, but the public care not one iota whether it is F., A. or L. It is all the same to a prospective employer. Either one is a member of the Institute or not, and that is all that matters.

In view of the latest proposals to make the R.I.B.A. co-terminous with the entire profession, I venture to believe that I am voicing the opinion of many in saying that membership of the Institute will not be worth the subscription.

F.R.I.B.A.

*** Correspondence will be found on page 1083.

# MEETINGS

MONDAY-WEDNESDAY, *June* 17-19.
*Institution of Heating and Ventilating Engineers.* Summer Meeting. At Bath.

WEDNESDAY-SATURDAY, *June* 19-22.
*Institution of Municipal and County Engineers.* Annual General Meeting. At Buxton.
*Surveyors' Institution.* Annual Country Meeting. At Belfast.

FRIDAY, *June* 21.
*Royal Sanitary Institute.* Discussion on "Smoke Pollution." At the North-East Coast Exhibition. 2.30 p.m.

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**R.I.B.A. Statutory Examinations.**

The R.I.B.A. Statutory Examinations for the office of District Surveyor under the London Building Acts, or Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on October 16, 17, and 18. The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is October 1. Full particulars of the examinations and application forms can be obtained from the Secretary, R.I.B.A.

# THE R.I.B.A. YORK CONFERENCE

## "CONTROL OF ELEVATIONS."

THE British Architects' Conference at York opened on Wednesday last with an informal reception in the Assembly Rooms, when a pleasant evening was spent. Members were the guests of the York and East Yorkshire Architectural Society, and were welcomed by the President and the Past-President of the Society.

On Thursday morning the Conference assembled in the Tempest Anderson Hall for the Inaugural Meeting. Members were officially welcomed by the Rt. Hon. the Lord Mayor of York, and the President of the R.I.B.A. delivered his Inaugural Address, after which Mr. William Haywood, F.R.I.B.A., gave an address on "The Control of Elevations."

Mr. Haywood said that the need for power to check incompetent design for building elevations had been discussed at some length during the past few years; and the matter had now been given so much publicity that we found ourselves somewhat unprepared with the machinery to operate this power if it should be granted. A draft suggestion for procedure to operate control had in fact been issued by the Ministry of Health; and Clause 128 of the Bath Act of 1925 took power to exercise control in that city. But he was not alone in the opinion that the procedure laid down in both these instances was wrongly conceived, and that they provided an additional reason for further inquiry by the Institute. The problem was difficult, and there were even those who were of opinion that we should do more harm than good by advocating a control which might so easily become interfering and a doctrinaire.

We were told by M. Louis Georges Pineau, in an article on "Architectural Control Over Town Development in France," that it was only under restrictions laid down for the pre-eighteenth century royal squares and the servitudes attached to the Place de l'Etoile and the Rue de Rivoli, that it had been possible to exercise any great amount of aesthetic control over elevations in Paris, and the extent to which Paris had succeeded in expressing herself architecturally under this limited control might perhaps be considered an argument for non-interference. We remembered, however, that Paris had been exceptional in the many far-reaching and unpremeditated circumstances which had invited an orderly growth; in the use made of these circumstances by a logical people; in the military and political importance attached to coherent road planning and architectural display; and in experiencing the comparative ease with which a high standard of design was maintained once it had been established. The influence of non-aesthetic or partially æsthetic by-law control of elevations in Paris first appeared in a decree of 1806, which limited the height of buildings; a decree which had since been modified to define heights by an imaginary arc containing the profile of the building, and varying with the width of the street. A law of 1811 permitted the Prefect of the Seine to impose certain building regulations; and a "Superior Council of Civic Building" safeguarded amenities so far as building perspectives were concerned (whatever that might mean); but there were still no laws governing aesthetics; except in the case of the monumental perspectives referred to.

As it was not intended to limit the discussion of control to the elevations of buildings only, said the lecturer, but to include sites and building accessories, it might be noted that the architects of the municipality of Paris could prevent the "uglification" of roads by rejecting the plans of kiosks, tram stops, fire alarms, etc., where they were considered unsuitable; and that they might if necessary refer such matters to the Inspector General of Architectural Services, an official who was usually an architect with the Government diploma, and sometimes a member of the Academy of Fine Arts. It would appear also that with respect to aesthetic control under Town Planning Laws in France such provisions as existed had proved to be as theoretical and inoperative as the hopes for aesthetic betterment expressed in the Town Planning Acts of Great Britain.

Germany appeared to be better supplied with authority for the control of elevations than France or ourselves. Sweden would seem to be less in need of "control" than other nations. Outside the capital she did not appear to suffer from the aesthetic troubles of industrialism, and Stockholm itself had the aesthetic advantages of all capital cities, which she had known how to use with effect. In at least one respect, however, Sweden provided material which was related directly to the subject in hand. She had a national advisory art bureau, which might be consulted by anyone interested in the application of art to industry; or in the commissioning of artists or architects for new works. This bureau was served by the best talent in the country; it was freely consulted; and among the evidence of its influence was the present high quality of Swedish arts and crafts. Sweden had to-day the good fortune to be in the grip of a vigorous and spontaneous art expression, which was strongly supported by the highest social influence; conditions which were highly favourable to the application of such control as she might need.

The United States of America proceeded to the control of elevations chiefly by means of Art Commissions. They had many such commissions, varying greatly as to the ground covered and the extent of the veto. In New York the powers given to the local Commission by an Act of 1907 were emphatic, not only as regarded municipally owned sites and buildings, but also in respect of "structures and approaches which were the property of any Corporation or *private individual*, which should extend over or upon any street, avenue, highway, park or public space belonging to the City"; the only limitation of full control being the power of the mayor to ask for the individual exclusion of structures costing less than $250,000; a request that the lecturer understood, had never been made; and also some strictly limited negative action reserved to the Park Board. It should be noted that these drastic powers were acquired by New York as a sort of confirmation of procedure which had already justified itself on a voluntary basis. In Washington a "National Commission of Fine Arts" was established in 1910 by Act of Congress. The provisions of this Act were compulsory as to submission but free as to acceptance, and the matters dealt with were chiefly monumental. Building elevations might be read into the scope of the Act, but they were not specifically mentioned in it. The limitations of the Washington Commission, and the need for further control, were indicated by the appearance, some seven or eight years ago, of the "Architects' Advisory Council," a body initiated by the Washington Chapter of the American Institute of Architects, which was making a vigorous attempt to improve the quality of design in local private building. This Washington experiment in the professional guidance of design for private building was in some respects one of the most promising methods of dealing with the problem in Great Britain.

In England the first body to be given any sort of authorised standing with respect to the criticism of Building Elevations was the Birmingham Advisory Art Committee, a semi-municipal Committee for the purpose of reporting to the Corporation upon any designs submitted by the departments of the municipality. These designs might be prepared by the departments referred to, or by independent architects, but they referred only to buildings for municipal purposes, or to private buildings on municipal land. There was no power to call for the submission of designs for private building on private land, because in 1922 the prospect of a successful appeal for such powers was remote. It should be noted that even these municipal submissions were made at the pleasure of the departments concerned, but that nevertheless some three hundred designs of buildings and building sites had been made in the six years of the Committee's existence. It might be said, therefore, that the feasibility of this Committee's procedure had been established.

The Royal Fine Art Commission was set up at the close of the year 1923. This body also was advisory. It had no power of veto, and no statutory powers in the first instance. Its advice might be sought by the Government or by any other authority of standing, upon any "artistic question in the open air," and its opinion had been sought on matters of considerable national importance, although the exact number of consultations to date was not on record. The third Advisory Art Committee working in England was that of Leicester, which was initiated in 1924, and had had an encouraging number of submissions from most of the important Committees of the City Council. Other machinery for the control of design in England (in anything more than an incidental manner) was found in Clause 128 of the Bath Act of 1925, and in the amended City of Birmingham South Town Planning Scheme of 1925.

In the previous brief sketch of the extent to which control of elevations was attempted or sanctioned in different countries to-day, said the lecturer, it was easy to see the growth of a general conviction that a check of some kind should be placed upon ugliness in the design of buildings and building accessories. In the lecturer's opinion, the word "control" was too drastic a term for the sort of action that was desirable or likely to be possible in this country. It conveyed the wrong idea to the lay mind, and also to those architects who objected to any action which interfered with the free expression of art. He considered that anything more definite than counsel or advice in such matters was contrary to the interests of art, and, all things considered, he had seen no better term than "Advisory Art Committee" or "Commission" as a title for art juries. It had the disadvantage, perhaps, of being somewhat indefinite, but, on the other hand, it did not challenge resentment and fairly indicated an inspection or guidance of art in which there was no drastic interference. Next, it was important to realise just where the matter stood with respect to Local Government. It would be observed that local authorities, who had for many years exercised control over certain technical details of design, were reaching out here and there—as was seen by the Bath Act and other powers granted or applied for—for the extension of their authority to the control of designs for building elevations. It might be concluded from this that not only were local authorities fully aware of the present trend of public opinion, but that they considered themselves the proper authority to operate any new powers that might be granted for this purpose.

The control by local authorities of the aesthetic aspects of building was surely not one that architects could accept; and in opposing it the lecturer liked to believe that it was really the outcome of a misunderstanding as to the proper function of the several interests concerned. These could be set down as follows:—First, that no local authority could be expected to abate its standing as the ultimate authority in local affairs; and therefore that art juries or commissions which sought to use the quality of local government by compelling the submission of municipal or private designs for examination and report must realise that this would be possible only under the aegis of the local authority. Second, that once the supremacy of the local authority was agreed, the work to be done, up to the point of formal approval, lay naturally in the hands of impartial and competent technical committees. This classification of function might seem

obvious to those familiar both with the work of local governments and of design; but there was a deal of misunderstanding among architects and local councillors alike as to the proper limits of technical and of administrative functions, and there could be no doubt that better progress would be made towards the common objective when both claimants saw more clearly the proper range of their function in so delicate a matter as the adjudication of aesthetic expression.

With respect to the personnel of Advisory Art Commissions it was wise to avoid as far as possible the personal factor in election by arranging for a fairly large proportion of ex-officio members. There were positions in all localities which carried with them a sufficient qualification for such membership, and by this method of election a certain amount of automatic change was secured. In addition to representatives of the general cultural institutions of the area to be served, the offices represented would naturally include members of the local government, their technical staff, and the mayor as president. This nucleus would have power to co-opt non-official members to be chosen for technical knowledge of the work to be done. As the number of submissions increased it would become necessary to increase the number of technical members still further; and this would probably be best accomplished by a rotation of short period service, in periods of not less than one week, after the manner of the Washington "Architects' Advisory Council," where an executive of three out of fifty-two members of the technical council met each week to adjudicate. Each week one new member was added from the waiting list and one dropped, in accordance with a schedule of assignments for the year. This schedule was arranged and sponsored by a co-ordinating committee of the Washington Chapter of the Institute of Architects.

It was of course clear that from the moment that designs for private buildings came up for consideration the amount of work to be done was so much increased as to make imperative such a rotation of technical experts as that referred to, or the adoption of the unpleasant alternative of a permanent staff.

Regarding the scope of the work, the task of Advisory Art Commissions lay, first, in giving advice on the choice of executants for new works, after the manner of the Swedish Advisory Council already referred to; and second, in checking in simple and broad terms incompetent designs for buildings and building accessories. The lecturer would not exclude the constructive criticism of designs of better quality, but it was obvious that the higher the quality of design the more difficult should be the criticism; and the more obvious, too, the need for proceeding by advice rather than by compulsion. The delicate matter of maintaining intact the standing of the designer with his client, a standing which might be prejudiced if a design were too openly challenged, was met by reporting the result of the preliminary examination privately to the designer, obtaining his agreement, or adjusting the criticism in the light of his comment, and omitting all reference to such alterations as might be mutually agreed in this manner from the official report to the committee as a whole.

There were still two movements relative to the subject to which reference must be made. The first of these was the work of the Washington "Architects' Advisory Council" already referred to. The scope of the council was limited to the design of private building, new designs for public buildings being already controlled by the "National Commission." It sought to influence design for the elevation of buildings at as early a date as possible, and generally at the time of submission, but before sanction by the local authority in respect of sanitary and constructional requirements had been obtained.

The jury met in the office of the Assistant Engineer Commissioner, and no building permits were delayed by this procedure; but whether permits were granted or not, the designs were criticised; and those criticisms were forwarded each week to the owner or architect concerned. There was no compulsion. The advice was sometimes taken, sometimes left, but the result on a whole was said to be a substantial balance to the good. Most of the ablest architects of Washington were members of this novel council, and they were all liable to service upon an arbitrary assignment. The general tenor of a manifesto issued by the council was to the effect that it "is determined to make good architecture better and bad architecture impossible in Washington, under a penalty of public exposure."

The underlying idea might also be seen in the following extract from a recent circular:—"As the movement is now shaping up, it becomes not only a matter of bettering each building as it is erected, but by the writing of carefully phrased reviews it becomes a matter of education of the building public. These reviews are not going into the files, as many of them have done in the past, but they are going to be seriously considered by the people of the section in which the buildings are erected; and the promoters are going to be approached by the citizens to find out whether or not they are co-operating. In case co-operation is not forthcoming because of disagreement with the findings, the way is left open for further consideration by succeeding juries. In case there is lack of co-operation because of lack of sympathy with the idea of better building, then the element of public opinion will become a factor. Here, again, a grave responsibility will rest upon the architects, because this movement must by no chance become a force which might be construed as a censorship of art. Nor can it concern itself with petty details of design. It is for the elimination of ugliness and for the bettering of good work."

He had already referred, said the lecturer, to the method of maintaining an active and constantly changing jury of three from a reserve of fifty-three local architects; and the attitude of the profession itself might be seen in the following resolution:—"Resolved, that the Board of Directors of the American Institute of Architects expresses its appreciation of the public service of the Washington Architect in the institution and maintenance of the Architects' Advisory Council, organised for the betterment of private buildings in the National Capital. It recognises the possibilities in the work, the opportunity to contribute largely to the development of the Capital and to supplement the work of the Fine Arts and Planning Commissions, and it urges upon the individual architect a full realisation of the opportunity and of the responsibility." This work in Washington had the merit of being a broadly conceived honorary service; operated by the profession itself, and countenanced apparently by the Local Authority, since it met in the office of the Assistant Engineer Commissioner, and was given access to the plans submitted to the Local Authority for another purpose. There was no legal standing, however, and results had to be obtained by persuasion, assisted in obstinate cases by the coercive power of public opinion. The lecturer did not put this procedure forward as entirely suitable to English conditions, especially in respect to some of its publicity methods (not referred to in this paper). But it contained many features which should appeal to the professional mind, and it had an important bearing upon any consideration of the control of elevations. The second movement to which he had referred was one recently put forward by the R.I.B.A., viz., the provision of designs for small houses by members of the Institute, without charge. The object here was to improve elevations in a class of building which was of vast importance; since by number, though not in individual size, they usually represented the greatest elevational effect of our towns.

The lecturer concluded by indicating the skeleton of a scheme for employment in Great Britain:—

(1) That no Commission or other authority established for the purpose of bettering the design of elevations should be given the power of veto.

(2) That the ultimate authority for operating Advisory Art Commissions must be the authority of the Local Government.

(3) That the Local Government should be represented on such Commissions by members of its Council and its Technical Officers, not exceeding in number one-fourth of the whole.

(4) That not less than one-half of the members of such a commission should be elected ex-officio, representing the educational, artistic, architectural and general cultural institutions of the area to be served.

(5) That such Commissions should have power to co-opt not more than one-fourth of their total number from the ranks of local architects, such co-option to be given a varying tenure of office to suit local conditions.

(6) That copies of elevations of all buildings, whether national, municipal or private, should be submitted to an office assigned for that purpose, but that no duplicate copies for record purposes should be required.

(7) That adjudication of elevations must be given within a stated limited period, or approval go by default.

(8) That all criticism should first be adjusted as far as possible with the author of the design, and no record made of criticism met by this initial procedure.

(9) That all matters referred to such Commissions should be held in strict confidence.

(10) That the R.I.B.A. send out a questionnaire, or take other means to obtain from representative architectural bodies abroad an authoritative statement of the extent to which control of elevational design has succeeded with them, together with the views of the executive officers concerned as to any adjustments which may be indicated as desirable as the result of experience.

(11) That the conclusions of the conference be referred to a Committee of the R.I.B.A. for further consideration with a view to drafting a memorandum for submission to the Ministry of Health and the representatives of Local Government.

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On Thursday afternoon members assembled in the Deanery Gardens for the taking of the Conference group photograph, after which visits were paid to various places of interest in the city. Tea was taken in the Deanery Gardens, and in the evening there was a Reception at the Assembly Rooms by the Lord Mayor and the Sheriff of York.

To-day (Friday) the following alternative whole-day motor-coach tours are available (9.30 a.m. to 6 p.m.):—Tour No. 1.—Newbald, Beverley, St. Mary's. (Lunch.) Beverley Minster. (Tea.) York.

Tour No. 2.—Ripon Cathedral. (Lunch.) Fountains Abbey. (Tea.) York.

Tour No. 3.—Rievaulx Abbey, Helmsley. (Lunch.) Helmsley Castle, Byland Abbey, Coxwold. (Tea.) York.

Tour No. 4.—Gilling, Gilling Castle, Hovingham Hall, Malton. (Lunch.) Castle Howard. (Tea.) Sheriff Hutton, York.

In the evening, at 7.15 p.m. for 7.30 p.m., the Conference Banquet will be held at the Assembly Rooms. The guests will be received by the President of the R.I.B.A. and the President of the York and East Yorkshire Architectural Society.

On Saturday the following informal visits will be made (9.30 a.m. to 12.30 p.m.):—

(*a*) Skelton Church and Beningbrough Hall (motor-coach tour).

(*b*) Nun Monkton Church and Priory (motor-launch trip).

(*c*) Bramham Park and Bolton Percy Church (motor-coach tour).

(*d*) Museum Gardens and Roman Excavations (with guide).

A further report of the Conference proceedings will be given in our next issue.

# ILLUSTRATIONS

## PLATES.

**York.**

In connection with the R.I.B.A. Conference at York, we give this week as a supplementary plate a special drawing, "York: A Microcosm," by Professor A. E. Richardson, as well as some air views of the city. We give also, by courtesy of Messrs. B. T. Batsford, Ltd., two illustrations of Burton Agnes Hall, from "Architecture of the Renaissance in England," by Mr. J. Alfred Gotch, together with some reproductions from "The Old Halls and Manor Houses of Yorkshire," by Mr. Louis Ambler, kindly placed at our disposal by the same publishers.

**India House, Aldwych.**

A description of this building was given in our issue for March 16, 1928. The drawings which we illustrate this week are now on exhibition at the Royal Academy. Sir Herbert Baker, A.R.A., F.R.I.B.A., is the architect.

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**Memorial Windows for France.**

These windows are being presented by the Imperial War Graves Commission, on behalf of all the Governments and peoples of the British Empire, for the Memorial Chapel which has been built in Notre Dame de Lorette French National Cemetery, on a spur facing Vimy Ridge. This spur was captured by the French in May, 1915, before the British Armies took over the sector, and from it they continued the attacks on Vimy, in which they suffered extremely heavy losses. The Chapel stands in a War Cemetery, containing the graves of no fewer than 30,000 of those who fell in these attacks, and is a central feature of the only large French memorial in the British area of the old front.

The windows, which have been designed and made by Mr. Henry A. Payne, R.W.S., commemorate the dead from all parts of the British Empire who fought over the same ground as their French comrades and fell on French soil. They are intended as a tribute of gratitude to the French people for the assistance they have given to the Imperial War Graves Commission in their work of caring for the British graves in France and the generous grants of land for British cemeteries and memorials. The windows, which consist of six lights, are to be placed at the ends of the transepts, three in each. In one set the central figure is that of St. George, with allegorical figures on either side, representing "Victory." Below is seen part of the field of battle, with wooden crosses marking the graves of the dead. In the other set St. Joan forms the central figure, with, on either side, "Memory" and "Praise." The arms of St. Joan are at the base of the window in which her figure appears, while the Royal Arms and those of the Dominions of Canada, Australia, New Zealand, South Africa, Newfoundland and India are grouped under the figures in the other windows.

**Brighton Aquarium.**

Established by the Brighton Aquarium Company, Ltd., in 1869, Brighton Aquarium was opened to the public in 1872. In 1901 it was acquired by the Brighton Corporation, who made a number of alterations and additions on taking it over. In 1927 the Borough Council decided to undertake a comprehensive scheme of reconstruction for the entire site, which covers an area of almost three acres. In these new buildings the tanks have been retained with various structural alterations, and new systems of lighting and aeration introduced, so that the exhibits can be seen to the best possible advantage. An innovation has been made in the scenic decorations of the tanks in which the fresh-water specimens are accommodated. They are designed so as to give the spectator the illusion that he is watching the fish in its natural habitat. The larger marine animals are accommodated in a tank which contains 110,000 gallons of sea-water.

The old clock tower, which for many years was a prominent landmark of the Brighton sea-front, has been demolished, and in its place are three bronze gates, flanked by two kiosks. From this entrance a wide flight of steps leads to the large courtyard into the main entrance hall and the restaurant, which latter has French windows opening on to the courtyard.

At the east end of the main aquarium corridor is the concert hall, which has a seating capacity of 1,200. Fitted with an up-to-date stage, orchestral accommodation, six dressing rooms, etc., it is admirably suited for variety and orchestral entertainments. The hall has a special hardwood floor for dancing, and it can also be utilised for exhibitions. To the east of the concert hall and on the aquarium floor level is the rifle range, club room, hairdressing saloon, men's toilet room, where hot and cold, sea or fresh water baths can be obtained.

On top of the aquarium, running the whole length of the building are two sun terraces. On the upper one is the bandstand, from which orchestral concerts will be given, and also the open-air café restaurant. These two sun terraces are linked up with the existing middle terrace of the Madeira Walk by another terrace, under which is a colonnade of shops, a licensed house, and a ladies' lavatory and parcels office.

The ventilation system is so arranged that the air pressure inside the building is slightly higher than outdoors, preventing air from entering the building except through the conditioning plant. Thus only the warm, purified air is allowed in the building. Fog and cold draughts are effectually shut out even if doors are often opened. Air is drawn through two main shafts to the conditioning chambers, where it is warmed, washed and purified before being distributed to the various parts of the building. Dust and fog are eliminated by passing the air through a very fine but dense spray caused by forcing water at a high pressure through nozzles in the air flow. This also increases the humidity of the air to overcome the dryness which would otherwise result from heating. Vitiated air is extracted by means of ten fans to ensure positive ventilation to all parts of the building.

The general contractors were Messrs. Rice and Son, Ltd., of Brighton, and the following were sub-contractors:—

Dawnay and Sons, Ltd., steelwork; B.R.C. Engineering Co., Stafford, steel reinforcements; Empire Stone Company, Narborough cast stonework: Diespeker and Co., Ltd., concrete flooring and terrazzo; Ashwell and Nesbit, Ltd., pumping installation; Pinching and Walton, electrical work; Haden and Sons, Ltd., heating and ventilation; British Vacuum Co., Ltd., vacuum installation; Braby and Co., Ltd., copper roofing; Crittall Manufacturing Co., Sidcup, metal windows; Battiscombe and Harris, Ltd., fibrous plaster work and decorating; British Challenge Co., Ltd., lantern lights; J. A. King and Co., Ltd., pavement lights; Young and Co., Ltd., steelwork; Acme Flooring Co., Ltd., maple and wood block flooring; Stevens and Adams, Ltd., wood block flooring; Parnall and Sons, Ltd., Bristol, shop fronts; John Brunskill, London, stage fittings and fire-proof curtain; General Electric Company, electric light fittings; Limmer and Trinidad Co., Ltd., asphalt work; Carter and Co., Ltd., wall and floor tiling; Comyn, Ching and Co., Ltd., bronze gates and fittings; W. H. Fellingham, Brighton, sanitary fittings; Robert Adams, Ltd., door furniture, automatic locks, etc.

The work has been designed by Mr. David Edwards, M.Inst.C.E., F.S.I., Borough Engineer and Surveyor.

**The "Lex" Garage, Lexington-street, W.**

The idea of a super garage first occurred to Mr. A. E. Sabey, who made out plans for a development much on the lines upon which it has now been erected. The Lex Garage Company were ultimately selected as tenants and the building put in hand, which after overcoming the very considerable difficulties with the L.C.C. authorities has been completed. The installation of a super sprinkler system with drenchers to windows, a blast duct surrounding building, forced ventilation for drawing out fumes of petrol, together with oil-fuel heating plant, are the ordinary requirements of a garage of this description, and are incorporated.

The first governing principle in the design of this garage was to obtain perfect access facilities; that is to say, the ease, speed, and convenience with which the motorist can drive in and park his car without having to leave it to the garage staff at the entrance, thereby causing congestion and annoyance. The very slow and tedious method of lifts has been abolished; the motorist upon arriving at the garage being able to drive on either of the four floors by an easy gradient, which is known as the ramp system, the entrance to which is 32 ft. wide, giving sufficient space for a four-way track. The garage covers an area of 28,000 ft. super, having a floor area of 121,000 square feet, and four exits — Lexington-street, Little Pulteney-street, Ingestre-place, and Peter-street. Considerable thought was given to the design of the floor space to avoid any obstruction in the form of columns. From end to end of the building there is one open span of over 50 ft. free of columns and other obstructions. At various places on each floor turntables have been installed further to facilitate the movement of cars. Alongside the main entrance there is a large reception office and waiting room, from which there rise two passenger lifts to feed each floor. At the other end of the main entrance there is a large and sumptuously appointed showroom. On the first floor there are ladies' dressing rooms and retiring rooms and bathrooms; a large restaurant and chauffeurs' room. On each of the other floors there are gentlemen's retiring rooms and bathrooms, all of which are appointed in a first-class manner.

The basement floor, which is fitted up with one hundred lock-ups, has its own entrance from Peter-street and Ingestre-place. This floor will be taken up entirely by permanent garaging. In the big open yard at the main entrance is provided a petrol station, having a storage capacity of ten thousand gallons.

The entire building is artificially heated and ventilated, and electric light and power have been installed throughout, sufficient for every purpose. It is constructed of white glazed terra-cotta, and the tower rises to a height of 75 ft. above the pavement. The architects were Mr. J. J. Joass, F.R.I.B.A., and Mr. Robert Sharp, in association.

The general contractors were Messrs. H. Sabey and Co., Ltd., and the following were amongst the main sub-contractors:—Petrol pump installation, Anglo-American Oil Co., Ltd.; casements, Crittall Manufacturing Co., Ltd.; faience and sanitary fittings, Leeds Fireclay Co., Ltd.; compressor plant, Lacy-Hulbert and Co., Ltd.; dust-proof non-skid and hardeners for floors supplied and applied by Plastona, Ltd.; floors and staircases, Stuart's Granolithic Co., Ltd.; heating, Rosser and Russell, Ltd.; patent roof glazing, Mellowes and Co., Ltd.; steelwork, Moreland Hayne and Co., Ltd.; sprinklers, Automatic Sprinkler Co., Ltd.; electrical lifts, Waygood-Otis, Ltd.; asphalting, Associated Asphalt Co., Ltd.; turntables, Francis Theakston, Ltd.; sanitary work, Matthew Hall and Co., Ltd.; steel shutters and doors, Arthur L. Gibson and Co., Ltd.; electric lighting, Pinching and Walton; and copper work to dome, F. Braby and Co., Ltd.

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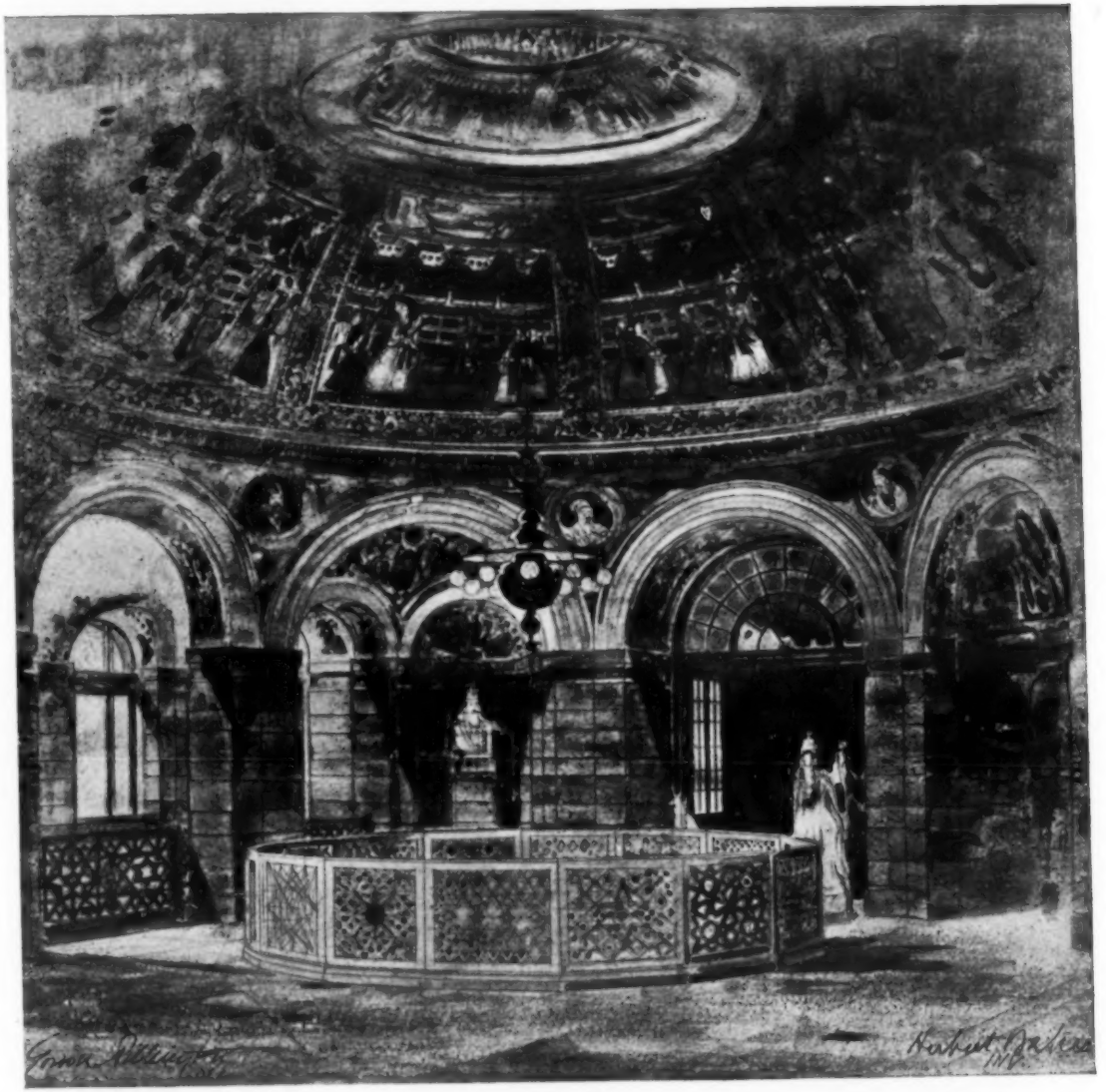
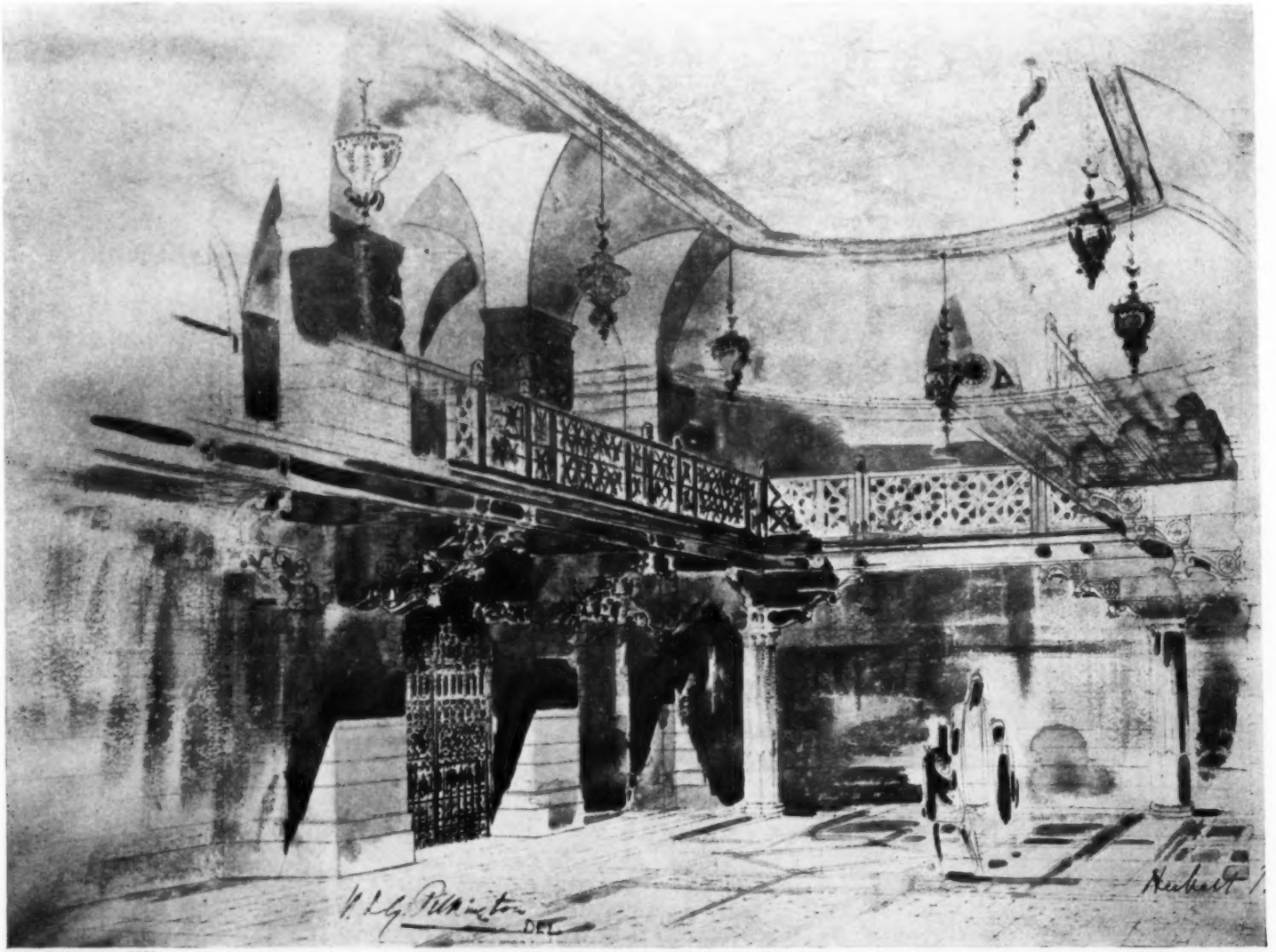
**York: A Microcosm.**

From a Drawing by Professor A. E. Richardson, F.S.A., F.R.I.B.A.



Octagonal Hall.

OCTAGONAL HALL.



R.A. EXHIBITION, 1929.

EXHIBITION HALL.

**India House, Aldwych.**

SIR HERBERT BAKER, A.R.A., F.R.I.B.A., Architect.

An Air View of York.

*Photo: Aerofilms, Ltd.*

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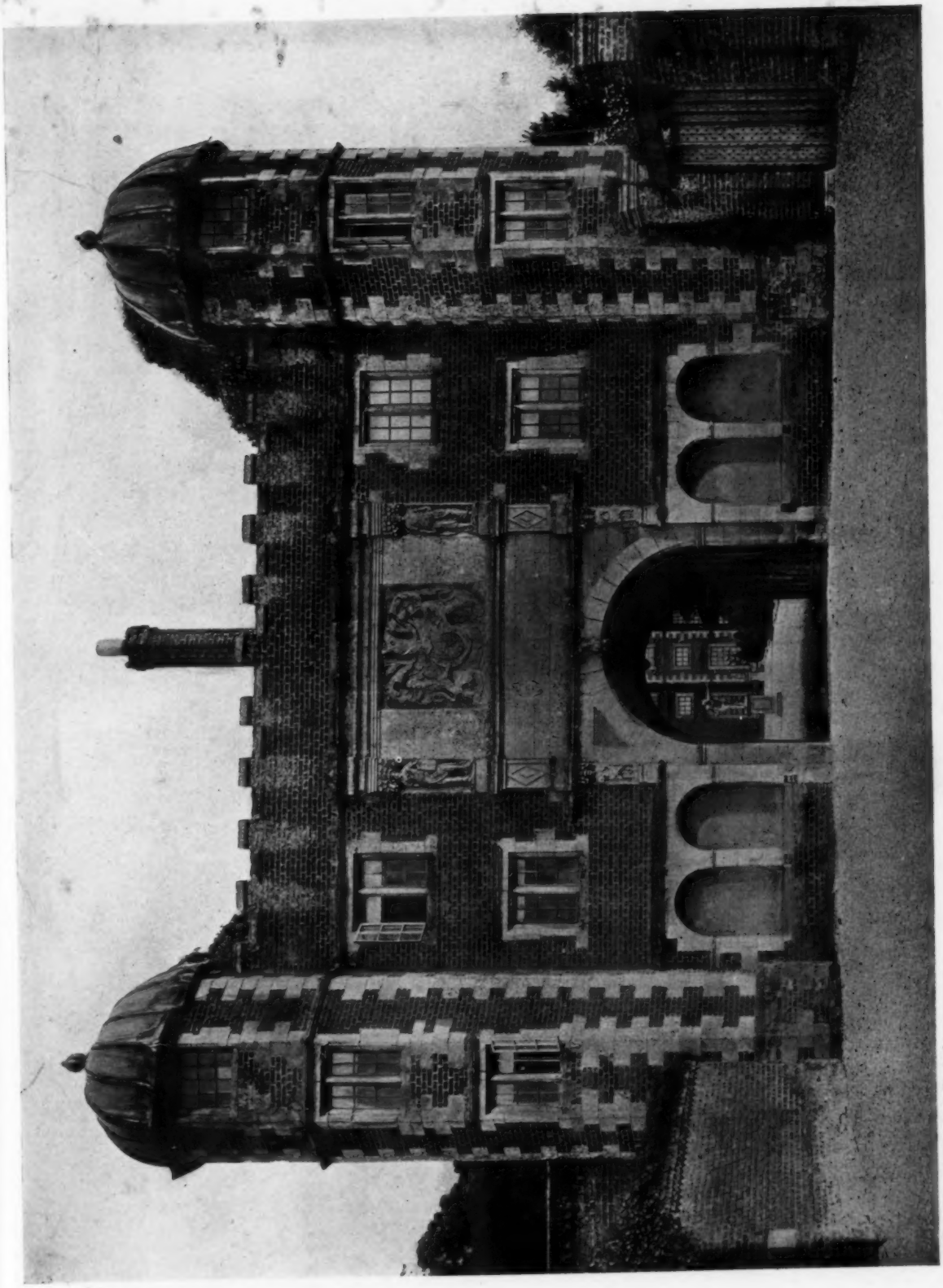

**Burton Agnes Hall : The Gate House.**

By courtesy of Messrs. B. T. Batsford.

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The Dining-Room, Gilling Castle.

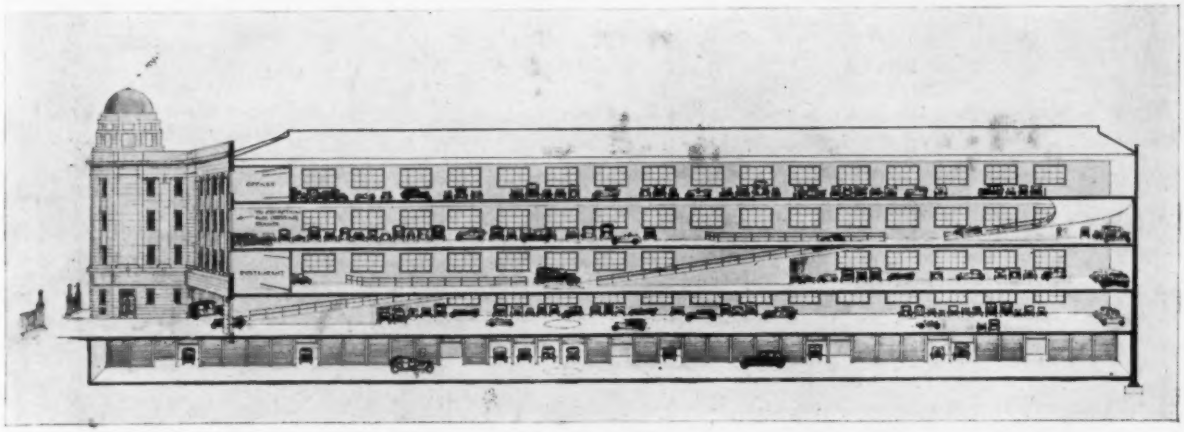
By courtesy of Messrs. B. T. Batsford.

Bay Window in Dining-Room, Gilling Castle.

Presented by the Imperial War Graves Commission.

**Stained-Glass Windows for Memorial Chapel in the French National Cemetery, Notre Dame de Lorette, France.**

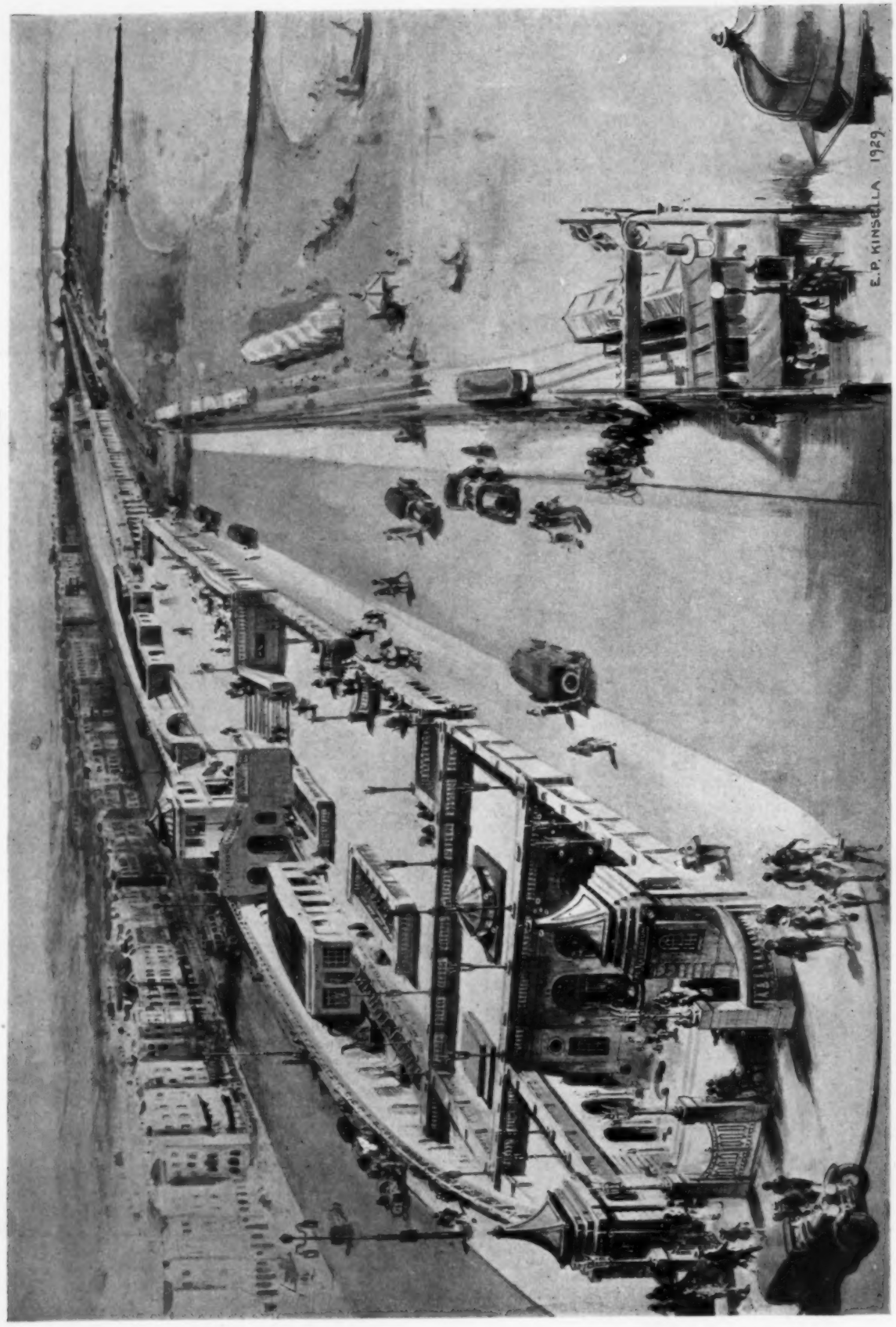
Designed and made by MR. HENRY A. PAYNE, R.W.S.



SECTION.

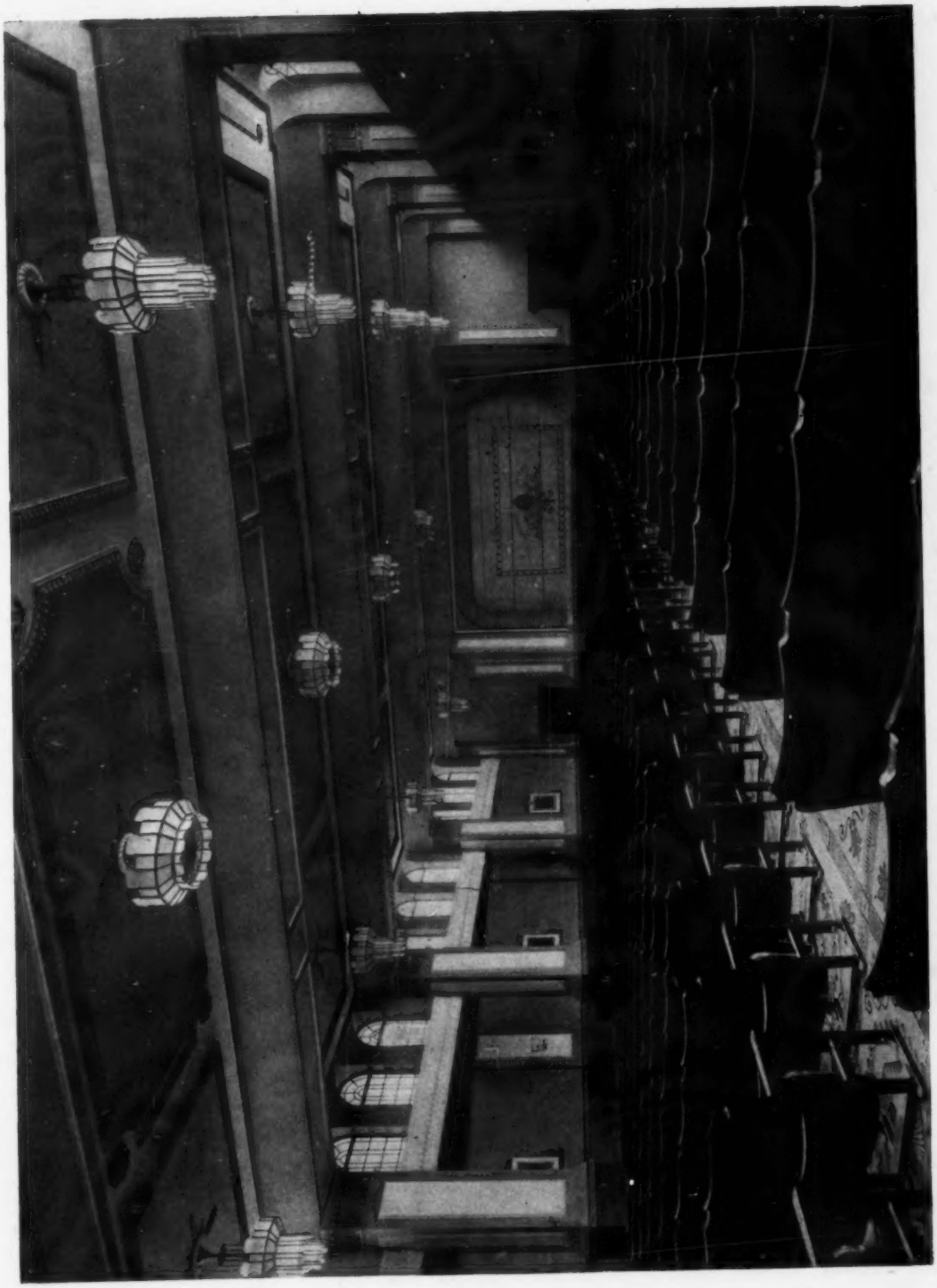
**The "Lex" Garage, Lexington Street, W.**

MR. J. J. JOASS, F.R.I.B.A., and MR. ROBERT SHARP Associated Architects.



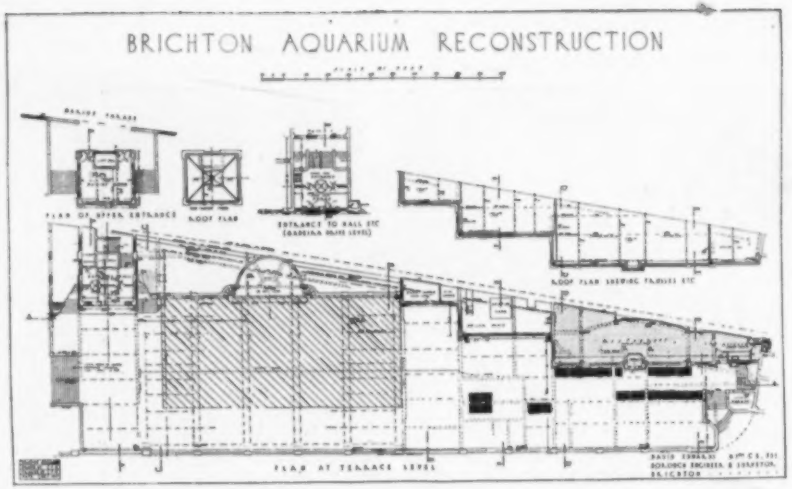

**Brighton Aquarium Reconstruction.**

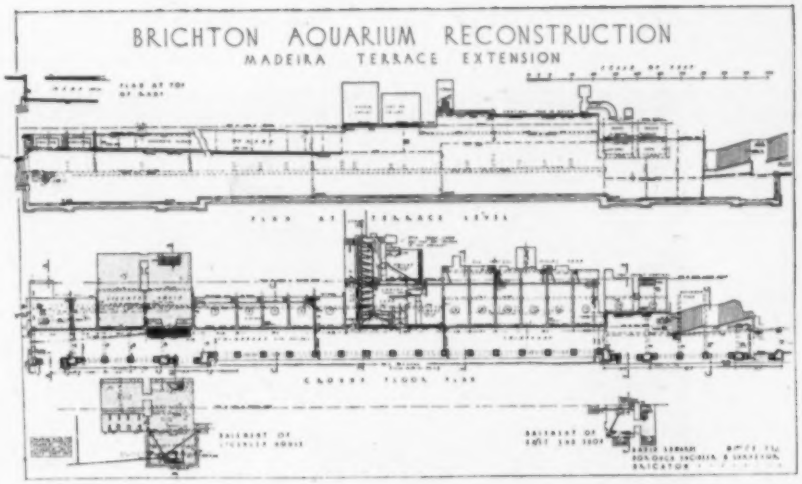
MR. DAVID EDWARDS, M.Inst.C.E., F.S.I., Borough Engineer and Surveyor.

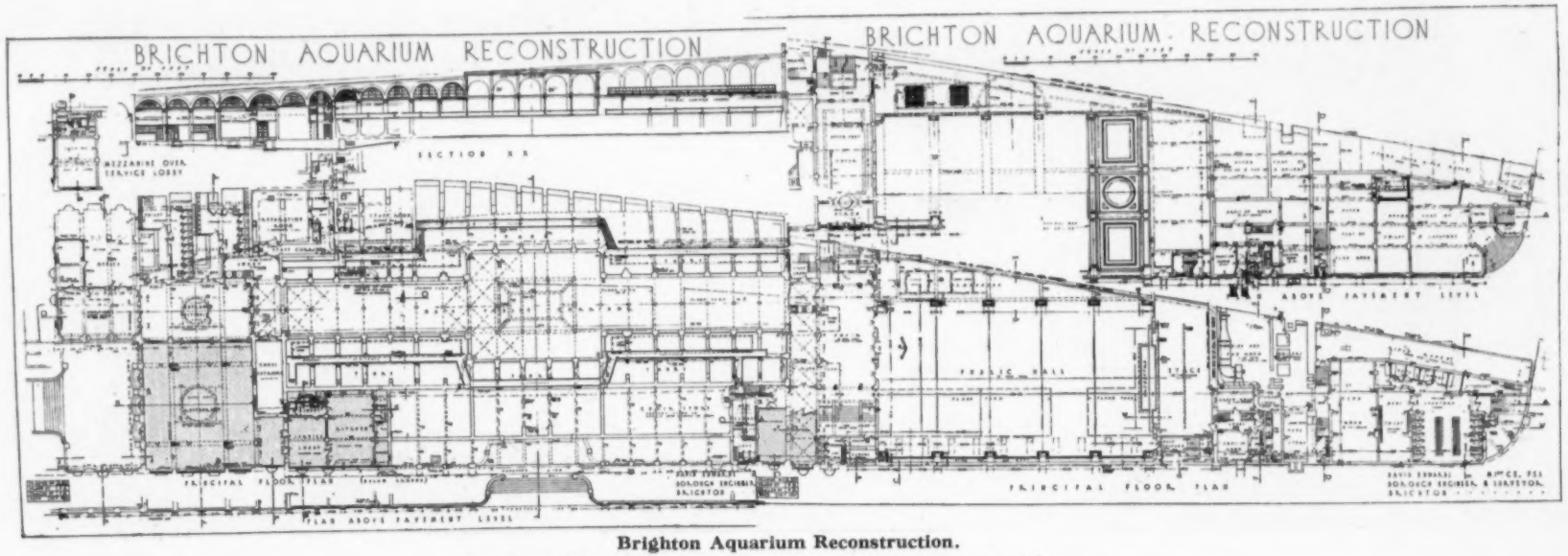


**Brighton Aquarium Reconstruction: Concert Hall.**

MR. DAVID EDWARDS, M.Inst.C.E., F.S.I., Borough Engineer and Surveyor.




**Brighton Aquarium Reconstruction.**

MR. DAVID EDWARDS, M.Inst.C.E., F.S.I., Borough Engineer and Surveyor.

# CORRESPONDENCE

### The R.I.B.A. Annual Dinner.

SIR,—I notice that on the presentation of the annual report of the Council of the R.I.B.A. a question was raised by Mr. E. H. Woodcock as to the fee for the annual dinner. Very properly he stated it was too expensive. As a country member who finds it impossible to afford the high charge I am pleased to see there was one at the meeting with courage enough to voice the feelings of a large number of struggling practitioners who are debarred from taking part in this annual event.

I am further interested to note the reply given by the President, which may represent the opinions of wealthy London members, but is out of harmony with the larger number of provincial architects, who often find it difficult to justify the payment of the annual subscription in view of the return obtained. As the Institute is now alarmed at its position in regard to other societies recently formed, I suggest a more tolerant attitude might be shown towards those who contribute a large proportion of the funds so necessary for its existence.

The President is of opinion that "the great thing is to keep up the dignity of this profession and do the big thing"; and to bring this about a certain wealthy section dines with "the biggest men in all the professions" and excludes the humbler brethren. The quoted words are most carefully extracted from the R.I.B.A. Journal for June. My name is not necessary, but if I thought it would assist it should be given.

A HUMBLE LICENTIATE.

### Architecture and Publicity.

SIR,—Your leading article on this question brings to mind the advice of the Prime Minister who, standing with his back to the door, said to his Cabinet, "Gentlemen, it does not much matter *what* we say, but we *must* all say the same thing." Are not we architects under a similar necessity to-day? We desire, above all, public interest and appreciation of our art; without these, true architecture cannot exist, and we are beginning to obtain a hearing. It seems to me that we may nip this budding confidence if we give the impression (not, I believe, a true impression) that we are divided on architectural essentials. On fundamentals we can speak unanimously: we all want to oust vulgarity and to retain the traditional charm of the countryside; we none of us want lifeless replicas of the past. Our differences are of degree rather than of kind, and are, moreover, of a nature not understood by the public. In attempting to produce buildings suited to our age some cling more closely to tradition than others, and there are, of course, extremists in both directions, but we are allies struggling against apathy and ignorance, and we cannot afford to fight each other in public if we are to stand any chance of winning our battle.

Our first consideration must be to arouse public interest, and if, in the lay Press, an architect extols the modern packing-case type of building, the architect who is out of sympathy with packing-cases should see that it is better so than that the whole business should be disregarded. His correct move should surely not take the form of an attack on packing-cases, but he should explain the beauty and merit of more traditional types of building, and so present a balanced picture. The public can easily understand that architecture presents many facets and that some architects concentrate on one and some on another—that there is room for selection; but if architects publicly ridicule each other's ideas, the man in the street will not discriminate but will say that the whole thing is a vastly complicated matter of opinion where experts are not agreed, and he will naturally conclude that it is not worth consideration on his part. Divided we cannot stand, and now that we have made so great an advance, let us concentrate on essentials and beware of losing our fledgling public confidence. Later on, when through our united efforts we have secured and consolidated the position of architecture as a serious art in the public mind, we shall have plenty of time for amusing dog-fights, and the public will then, we must hope, be in a position to take sides.

MANNING ROBERTSON.

# R.I.B.A. ELECTIONS

At a general meeting of the R.I.B.A. held on Monday last, at 9, Conduit-street, the results of the annual elections to the Council and the Standing Committees, 1929-30, were made public. Following is a list of the new Council:—

*President.*—Sir Banister Fletcher.

*Vice-Presidents.*—Mr. E. Stanley Hall, Mr. H. V. Ashley, Mr. H. M. Fletcher, Mr. John Keppie (Glasgow).

*Honorary Secretary.*—Mr. Sydney D. Kitson (Oxon).

*Members of Council.*—Mr. H. V. Lanchester, Professor S. D. Adshead, Mr. Maurice E. Webb, Mr. Percy E. Thomas (Cardiff), Mr. Oswald P. Milne, Mr. Francis Jones (Manchester), Mr. G. C. Lawrence (Bristol), Mr. Robert Atkinson, Sir Herbert Baker, Major Harry Barnes, Mr. Herbert T. Buckland, Mr. H. S. Goodhart-Rendel, Mr. Arthur Keen, Sir Edwin L. Lutyens, Mr. T. R. Milburn, Mr. E. C. P. Monson, Professor C. H. Reilly, Mr. H. D. Searles-Wood.

*Associate Members of Council.*—Mr. Michael J. Tapper, Mr. E. Berry Webber, Mr. R. Goulburn Lovell (Eastbourne), Mr. E. A. D. Tanner, Lt.-Col. H. P. Cart de Lafontaine, Mr. G. Leonard Elkington, Major T. C. Howitt, Mr. Manning Robertson, Mr. J. Douglas Scott.

*Licentiate Members of Council.*—Lt.-Col. P. A. Hopkins, Mr. J. Llewellin Smith (Aberdare), Mr. A. B. Hayward, Mr. E. H. Heazell, Mr. P. J. Waldram, Col. N. H. Waller.

*Past Presidents.*—Mr. E. Guy Dawber, Mr. Walter Tapper.

**Representatives of Allied Societies in the United Kingdom or the Irish Free State:—**

(1) *Six Representatives from the Northern Provinces of England:—*

Lt.-Col. A. K. Tasker (Northern Architectural Assoc.).
Mr. J. T. Halliday (Manchester Society of Architects).
Mr. D. A. Campbell (Liverpool Architectural Society).
Mr. G. Dudley Harbron (York & E. York Arch. Soc.).
Mr. G. H. Foggitt (W. Yorkshire Architectural Society).
Mr. C. M. E. Hadfield (Sheffield, S. York & Dist. Soc. of Architects and Surveyors).

(2) *Five Representatives from the Midland Province of England:—*

Mr. A. T. Butler (Birmingham Architectural Assoc.).
Mr. A. Herbert (Leicester & Leicestershire Soc. of Arch.)
Mr. R. J. Williams (Northants, Beds & Hunts As. of Ar.).
Mr. G. M. Eaton (Notts and Derby Architectural Soc.).
Mr. S. J. Wearing (Norfolk & Norwich Assoc. of Arch.).

(3) *Four Representatives from the Southern Province of England:—*

Mr. B. P. Shires (Devon & Cornwall Architectural Soc.).
Mr. T. Overbury (Wessex Society of Architects).
Mr. H. Hutt (Berks, Bucks & Oxon Architectural Assoc.).
Mr. J. A. Smith (Hants & I. of W. Architectural Assoc.).

(4) *Four Representatives of Allied Societies in Scotland:—* Nominated by the Council of the Royal Incorporation of Architects in Scotland:—
Mr. Andrew Balfour (Glasgow).
Sir Robert S. Lorimer (Edinburgh).
Mr. Donald Matheson (Inverness).
Mr. P. H. Thoms (Dundee).

(5) *One Representative of the South Wales Institute of Architects:—*

Mr. T. Alwyn Lloyd (Cardiff).

(6) *Two Representatives of Allied Societies in Ireland:—*
Mr. F. G. Hicks (R.I. of the Architects of Ireland).
Mr. E. R. Kennedy (Ulster Society of Architects).

**Representatives of Allied Societies in the British Dominions Overseas:—**

To be nominated by the Council of each of the following:—
The Royal Architectural Institute of Canada.
The Federal Council of the Australian Inst. of Architects.
The New Zealand Institute of Architects.
The Institute of South African Architects.

*Representative of the Arch. Assoc. (London).*—Mr. F. Winton Newman.

*Representative of the Association of Architects, Surveyors and Technical Assistants.*—Mr. W. H. Hamlyn.

*Chairman of the R.I.B.A. Board of Architectural Education.*—Mr. L. Sylvester Sullivan.

*Chairmen of the Art, Literature, Practice and Science Standing Committees.*

[The Standing Committees will be given in our next issue.]

**Specimens of Work done in the Woodcarvers' Class, Trades Training Schools.**

14, 1929
Brighton Aquarium Reconstruction.
MR. DAVID EDWARDS, M.Inst.C.E., F.S.I., Borough Engineer and Surveyor.

# FINDING THE STATION POINT

By S. W. SOMERSET.

It may be taken for granted, I suppose, that everybody connected with the architectural profession has at some time or other dabbled in the gentle art of perspective drawing, and it is not my intention, therefore, to go into the elementary aspects of the question, but to consider one or two ideas which may not have come to the attention of the

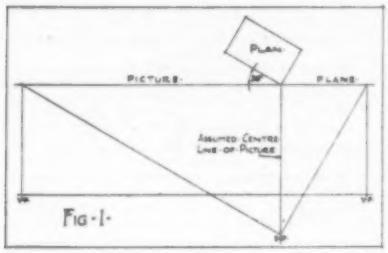


FIG. 1.

man who does only one perspective per decade.

From the title of this article it will be seen that we are not so much concerned with the actual perspective drawing as with the station point, to the selection of which all too little consideration is given. Many a drawing, however superlative the execution, is utterly spoiled by a badly chosen view point. This is a pity, when the observance of a few simple rules will result in the production of a good and accurate drawing.

Firstly, then, before commencing the drawing proper, one should visualise what the finished perspective will look like; in other words, make a freehand sketch roughly embodying one's idea of the finished job, and then follow up with the completed drawing approximating very closely to this idea.

The usual method of procedure appears to be, to set the building at an angle of 30 deg. with the picture plane, one corner being on the latter, with the station point immediately in front of this corner. This method is roughly outlined in Fig. 1, and cannot be too greatly deprecated if good results are desired. It will be seen that distortion is bound to follow if this particular corner is assumed as the centre line of the angle of vision, this being apparent more particularly when it is remembered that it is quite the usual thing to show the longer side of the building along the 30 deg. cut. Now there is always a certain amount of distortion in a perspective drawing, increasing with the distance of the object from the centre line, and this being the case it will readily be appreciated that should this latter be assumed in a position to one side of the actual centre line, the amount of distortion will be unequal. Point No. 1 then is: Always bisect the angle of vision.

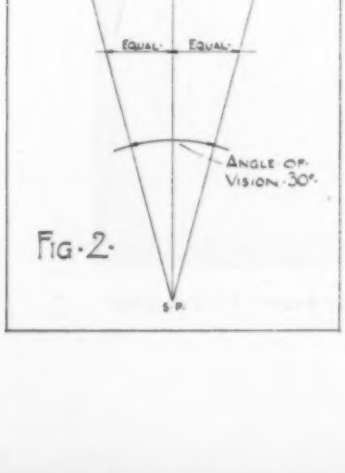


FIG. 2.

The angle of vision is fixed by the distance of the building from the station point, and the greater this distance the less the distortion. A usual angle is one of 30 deg. or slightly under, and this will be found to give very good results in actual practice. An angle in excess of this is likely to cause a lot of distortion, so that this should be considered the limit. This angle does not, of course, include anything but the actual outline of the building, as indicated in Fig. 2, frills, such as trees, etc., being extraneous to this. Fig. 2 also shows the angle of vision bisected.

Having decided these two very important points we are in a position to consider the expression of a more or less abstract idea in perspective form. This will almost certainly resolve itself into a question of the proportion of one element to another, such as the ratio of the front wall to the side wall, or the roof height to the wall height. For example, let us take the plan, elevations and freehand sketch indicated in Fig. 3. Here we have a simple rectangular plan and pitch roof, and we desire to preserve definite ratios of wall to wall as indicated at *a* and *b*, and wall to roof as at *c* and *d*. In other words, we desire to find a station point from which the finished drawing will resemble the rough lay-out as nearly as possible.

The position of any station point must be regulated by three conditions, the height of the eye above the ground confining the point to a horizontal plane, and therefore two dimensions are required to fix the point on this plane. It is clearly impossible to arrive at these two dimensions from our preliminary sketch, but we can find the line of vision from the ratio of the walls *a* and *b*, and the distance along this line can be either assumed or fixed by a restricting angle of vision, which we have taken as 30 deg.

In putting these conditions on paper, it is as well to do so to a conveniently reduced scale, according to the size of the finished drawing. Fig. 4 shows the preliminary lay-out for the freehand sketch in Fig. 3, the process being quite simple. First the angle of vision is plotted and then bisected as previously explained. The ratio of *a* to *b* is plotted, and from this the position of the building located, confined by the angle of vision.

We now have the station point in two dimensions, that is, on plan, and require to find the third, the height of the eye above

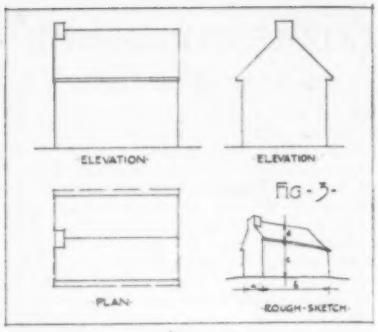


FIG. 3.

ground level. Draw a line AB through the station point (SP) and parallel to the side of the building on which the definite ratio of wall and roof is required. Now rough out a section conveniently above the plan and locate the position on the line AB, to which converging lines from the ground, eaves and ridge will give the desired proportion of *c* to *d*. This point will be the position of the eye on a horizontal plane, giving the distance above ground level. The picture plane can then be drawn, and then the necessary working lines for the actual perspective drawing, replotting to full size.

It will be noted that the picture plane indicated in Fig. 4 has not been placed lining up with the front corner of the building as is usually the case. This has been done to illustrate another point. Any desired width of finished drawing may be obtained by locating the horizontal position in which this width is contained between the converging lines enclosing the angle of vision, and assuming this line extended to be the picture plane. Thus the distance XY on Fig. 4 will be the width enclosing the purely mechanical portion of the finished drawing. All this preliminary work can be sketched out quite roughly, and the time expended on its preparation is amply repaid by the increased effectiveness of one's perspective work.

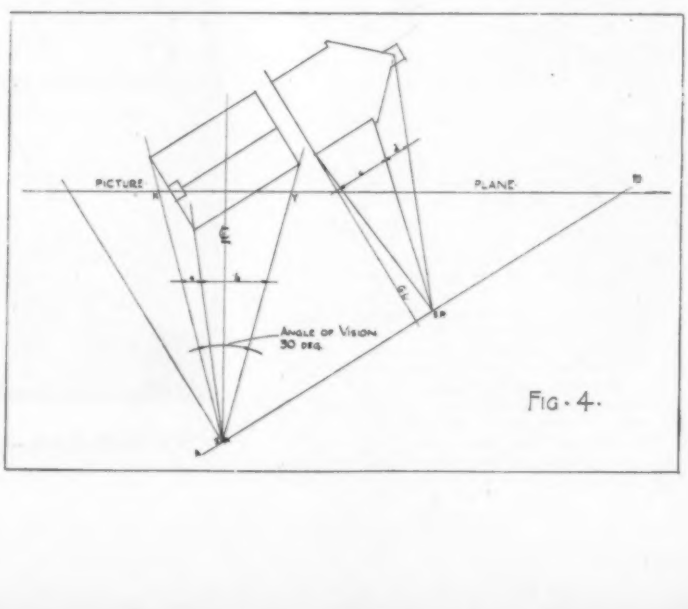


FIG. 4.

### American Railway Station Design.

The first railway station designed in the new American style of architecture is shortly to be commenced at Omaha. At the cost of over a million pounds a new building, the terminus for nine railways, is to be erected on a spot where herds of buffalo once roamed the prairies. The conventional columns are entirely omitted from this design, and the architects, Messrs. Albert, Stanley & Underwood for the northern unit, and Messrs. Graham, Anderson, Probst & White, of Chicago, for the other part of the station, have employed the idea of pyramidal masses. At the corners will be miniature skyscrapers with tops of the pyramid order, while arches replace the usual colonnades.

# R.I.B.A.

FOLLOWING are notes from the Minutes of the Council for May 13 :—

*The Architectural Design of Aerodromes.*—It was decided to appoint a committee representative of all the interests concerned to consider the question of the architectural design of aerodromes.

*Awards of Certificates for Craftsmanship.*—The Council have received a recommendation from the Allied Societies' Conference that they should consider, in endeavouring to bring back a greater love of craft and a higher order of workmanship, the question of awarding certificates of superior workmanship to workers in the building and allied trades. The Council have referred the proposal to the Architects' and Builders' Consultation Board and the Architects' and Operatives' Consultation Board for their sympathetic consideration.

*Post Graduate Prizes Age Limit.*—On the recommendation of the Board of Architectural Education the age limit for the post graduate prizes has been altered from 23 to 25 years.

*Report of the Sub-Committee on Damp Houses.*—The report of the sub-committee appointed by the Science Standing Committee to investigate and report on the question of damp houses was approved and will be published at an early date.

*Replies to Queries on matters of Professional Practice and Technical Interest.*—The Council, on the recommendation of the Science Standing Committee, have decided to adopt the system of publishing replies to questions of general professional interest in the R.I.B.A. Journal on lines similar to those followed by the Surveyors' Institution.

*The R.I.B.A. Architecture Medal for Essex.*—At the invitation of the Council of the Essex Society of Architects, the Council have nominated Sir Charles Nicholson, F.R.I.B.A., to act as the Chairman of the Jury of Award of the R.I.B.A. Architecture Medal for Essex.

*The Centenary of the South African College, University of Cape Town.*—The Council have appointed Mr. C. P. Walgate, F.R.I.B.A., President of the Cape Provincial Institute of Architects, to represent the R.I.B.A. at the celebration of the centenary of the South African College (now incorporated in the University of Cape Town), which will take place at Cape Town in October next.

*The Fellowship.*—The Council, by a unanimous vote, elected the following architects to the Fellowship under the powers defined in the Supplemental Charter of 1925 :—Mr. J. T. Halliday, A.R.I.B.A. (Manchester), Mr. Christian Doll (London), Mr. C. F. A. Voysey (London).

*Membership.—Election June* 10, 1929.—Nominations for membership were approved as follows :—As Fellows, 21 applications; as Associates, 9 applications; as Honorary Fellows, 2 applications.

*Retired Fellowship.*—The following member was transferred to the Retired Fellowship :—Samuel Francis Hynes, Fellow 1888.

*Resignation.*—The following resignation was accepted with regret :—John Standen Redkins, F.R.I.B.A.

*Applications for Election as Licentiates under Section III (f) of the Supplemental Charter of* 1925.—Three applications were approved.

*Application for Election as Subscriber.*—One application was approved.

*Studentship.*—The following Probationers were elected as Students of the R.I.B.A. :—Aitken, Francis Keith (Welsh School of Architecture).

Arankale, Raghunath Vishwanath (Bombay School of Art).

Archer, Hilary (University of Liverpool).

Brodie, Margaret Brash (Glasgow School of Architecture).

Buck, Edward Gerard (University of Sheffield).

Coleman, Frederick Randolph Doughty (R.W.A. School of Architecture, Bristol).

Earle, Robert Norwood (University of London).

Gifford, Robert Claude (Birmingham School of Architecture).

Holford, William Graham (University of Liverpool).

Jackson, Gildart Edgar Pemberton (University of Cambridge).

Kenyon, George (University of Liverpool).

Marrett, Eric Moore (Northern Polytechnic).

Oakes, Colin St. Clair Rycroft (Northern Polytechnic).

Skelcher, Philip (Birmingham School of Architecture).

Steel, Edward Danson (University of London).

Underwood, Walter (Glasgow School of Architecture).

# THE ABBEY SACRISTY

We have pleasure in quoting the following letter, which appeared in last Saturday's *Times*:—

Sir,—May I call attention to a point of view that amid all the discussion about the Abbey Sacristy has never yet presented itself? Our anxiety to hide it so that it shall offend nobody does not appear a very valiant point of view, or one complimentary to architects, though the Dean has told us that the site was chosen for that very purpose. Mr. Tapper's position is not only a hard, it is an impossible one, and the inevitable state of mind produced on being asked to do exactly the opposite of what an architect would appear to be called in for no doubt accounted for the dismal and mortuary-like little building erected, which precluded any hope of success. Is not the right and proper solution rather to believe in the power and genius of our own time to give good things, and having called in a good architect to leave him free? But with eyes only in the back of our heads, so many of us continue to make a fetish of the past and of the Abbey as well. When it comes to realities, there is very little of the original Abbey remaining externally. Pearson's north transept carved a good piece out of this "perfect and unique mediæval monument." In fact, the actual Abbey of to-day, noble as it is, not answering to the sentimental descriptions of it by the ardent protagonists of the S.P.A.B., they have had to invent an Abbey for the purpose of their point of view.

Sir Christopher Wren, when he built the Chapter House for Lincoln Cathedral, was not, I venture to think, asked either to hide or bury it; neither underground sepulchre nor loft was suggested as necessary in order that it should offend nobody, nor was it imposed on him that the second-hand mediæval wardrobe was to be adopted; the result of which is a vital bit of building characteristic of the architect.

Does not all this suggest that there is an alternative—one way which, though it has never suggested itself, is yet the right one; to employ a good architect and then to leave him free? Absolute security for success not being obtainable, failure is not impossible, but the miracle might happen in such a case; it can never happen in the other. Caution, fear to offend, the dead hand of the antiquary, and superstitions about the Abbey continuing to hold us in an unedifying servitude, we shall never do any good.

REGINALD HALLWARD.

20, The Common, Ealing, W.5.

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**Liverpool Building Trades' Lock-out Averted.**

A threatened lock-out in the building trades at Liverpool has been averted. A three years' agreement has been signed between the employers' and workers' federations on the basis of one penny per hour reduction, except for painters, where the reduction was one halfpenny per hour. Six trades voted in favour and four against the agreement, but the unions who opposed have now accepted the terms.

# EXHIBITION NOTES

## WORK BY EINAR FORSETH.

ENTRUSTED by Ragnar Ostberg with the decoration of the great Golden Hall in Stockholm's City Hall, Mr. Einar Forseth has at the Architectural Association an exhibition of the preliminary sketches and cartoons for the work. The exhibition is of more than usual interest. The architecture of this hall has already received much attention in architectural circles, so readers will be familiar with the circumstances connected with the building and its decorations. These decorations, largely influenced by the artist's study of Eastern mosaic and other ancient decorative work, present an interesting problem for the student of art.

The work of an admirable artist, the primitiveness of treatment, whether assumed or not, with which the work is penetrated, raises many issues. It will hardly be doubted that, in the ancient work of the East or the art of the eighth to the twelfth centuries in Europe, there was no conscious duality in the interpretation of the artist, who represented as he felt, and as his knowledge enabled him to do. The primitiveness, in so far as it was primitive, was not assumed; it was, on the contrary, the most natural, direct expression within the means of the artist. Mr. Einar Forseth, through his training at the school of arts and crafts and at the Royal Academy, Stockholm, was equipped, no doubt, with a thorough knowledge of the human form as we understand it to-day, yet in his representation he deliberately reverts to the primitive manner. This suggests to us an interesting problem for the anthropologist, for in order to produce these very remarkable decorations Mr. Forseth abandons his knowledge. He could, no doubt (in fact, examples show it) draw the figure perfectly well from the student point of view. But if no use is made of it, was it necessary to spend years in reaching to an accomplishment, only to abandon it when actually producing? Is there not in all this something which challenges much of the methods of modern art training, and is intellectualism, as Anatole France has suggested to us, but a comparatively recent and undesirable thing? Have we to forget our knowledge in order to free ourselves for production again? Must the wisdom of children replace the intellect—whose meddlesome interference and pride of knowledge have set up barriers between us and the natural endowment — which it thus overwhelms? For there is no merely imitative plagiarism in Mr. Forseth's art; the artist in him dominates the production which has quite its own sort of beauty, though its connections are almost wholly with the past. It is creative, and it is creative experience that we lack to-day. So we ought to welcome such work as springing from a renaissance of human experience wrought from deeper sources. Mr. Forseth's work is nearer to the essence of things in that it is more concerned with creative experience than with that external naturalism which is still so much the source of failure in the arts to-day.

Whether this is the case or not, there is much that concerns the student of art in these designs, and they afford him an opportunity to reconsider much of present-day teaching. Those designs intended for the decorations in the Golden Hall are among the most interesting of this artist's examples. In addition there is a series of designs for the restaurant "Meteropole," and sketches for stained glass and mosaic. Only those who have seen the actual decorations at Stockholm can judge whether they carry out the promise of these remarkable designs, but they should be seen by all those interested in the movements of the present time towards the reshaping of conceptions still "muddied o'er" with crude Victorian survivals. The exhibition at 36, Bedford-square remains open until June 29.

# TOWN PLANNING INSTITUTE

## ECONOMICS OF TOWN AND ESTATE DEVELOPMENT.

MR. E. WILLIS (president) took the chair at a meeting of the Town Planning Institute held at Caxton Hall, Westminster, recently, when Sir Theodore Chambers read a paper on "Economics of Town and Estate Development." The lecturer said urban land development was a business proposition subject to the ordinary laws which governed production and consumption. Price, profit and loss, market fluctuations could all be related to the law of supply and demand. In other words, there was no mystery about estate development. It was only the old-fashioned machinery for carrying it out that was mysterious At the same time, the business was an extremely complicated one. It was immensely varied as to the elements involved and the work that had to be undertaken. It covered a very wide field of technical work and might involve several professions, surveying, architecture and engineering as well as finance. It was often a highly speculative business. The operator had to face and submit to a number of influences over which he had no control. The time element between production and consumption was long and variable. An undertaking entered into in one set of circumstances might not be completed before an entirely different set of circumstances arose. The immovability of the thing produced placed the economics of the subject in a class by itself. The difficulties of the business might be best appreciated by an analysis of the basis of the undertaking, that was to say, what constituted and decided the ultimate value of real property. The value of urban land and what was placed upon it, or the price that it would fetch in the open market, was commonly judged by what they called experience. The experienced valuer might check his opinion of value by theoretical analysis, but he normally formed his opinion by comparisons and analogy. Valuation was an art and not a science. Until a transaction actually took place everything was mere guesswork. In dealing with land they had to guess what was going to take place decades before it happened. They had to discount the future, a very risky business. What land and houses would fetch in the future did not depend on what they cost to produce to-day.

Prices for land had sometimes been abnormal for decades. These abnormal prices might appear to be well nigh permanent, as in the case of central areas in cities like New York and London, where virtual monopoly of space for certain utilities existed. He suggested that nothing was permanent in this world, and even the values in the centres of London and New York might be dissipated by centrifugal distribution engineered by rapid transport and other means of communication.

It was inevitable that society would at a very early date come to the conclusion that additional powers were necessary in order to give town planning an excuse for survival. So soon as town planning was applied to built up areas it would become obvious that unless schemes of improvement were to remain on paper for ever some means must be found of converting desire into action. When the doctrine of "pooling," whether voluntary or compulsory was accepted, they would give a more careful consideration to the economics of the subject than they had done in the past. Hitherto the economic problem had been confined to a particular area, individual ownership and control. The problem had been simply this. How was the owner to make most money out of his plot? He could not do much to alter the environment of his plot. He could not alter, as a rule, the shape of his plot. He had to take his job as he found it and make the best of his business without consideration to the effect of what he did upon anybody else, and nobody else considered the effect of what they might do upon him. They had a thousand separate unattached and unconnected economic problems; a welter of individual economic units absolutely unrelated. As Pigou had said, "It is as idle to expect a well-planned town to result from the independent activities of isolated speculations as it would be to expect a satisfactory picture to result if each separate square inch were painted by an independent artist." Town planning when applied to built up areas would force attention to far broader considerations. It would be realised that the real economic unit to be considered was not that of the individually owned plot, but nothing smaller than the whole town. The day would arrive when our descendants would read with amusement of the extraordinary muddled conditions of central London in the nineteenth and twentieth centuries; how four-roomed cottages occupied land worth potentially £60,000 an acre for business or commercial use; how relatively small and inexpensive works, which might have had a profound effect on the value of considerable areas, were held up for decades because no means was found of giving effect to them.

It was really quite extraordinary that London had tolerated so many of the stupidities which still existed everywhere. To-day large area clearances properly handled might be made highly profitable. London was far from being an overcrowded city. The overcrowding which they heard so much about was merely an overcrowding of rooms, not an overcrowding of areas. There were vast areas in London which were really very sparsely inhabited. The common-sense treatment of such areas lay in the direction of wholesale pooling of ownership, wholesale demolition of the buildings, complete clearance of the sites, often breaking up and obliterating the old roads, and then with broad vision replanning the whole of, say, 40, 50, or even 100 acres, with wide streets, avenues, parks and playgrounds, shopping centres and well-designed residential buildings, individual houses, tenements, flats or what they would, but without greed. It was greed that killed good planning in most cases and it was a short-sighted greed. It would only be by treating the economics of development on the broadest and widest lines that they would see their ugly, forlorn, third-rate, depressing English industrial towns lifted into something they might be proud of. The application of the process of pooling in town planning was, of course, no new thing. The compulsory pooling of properties in different ownership with a view to the more advantageous laying out of particular areas had been in existence under various town planning laws for more than half a century. A noteworthy example was Frankfurt-on-Maine, which had obtained a local act in 1902. During the first ten years, 14 areas with a total extent of 375 acres were pooled and redistributed with the assent of the owners. Originally consisting of 643 lots belonging to 149 different owners, the land was reparcelled into 298 lots after a deduction ranging from 25 to 40 per cent. for street purposes. Other German towns had adopted similar powers.

He was beginning to hate London—not the London of St. James's Park, Whitehall, Westminster Abbey, St. Paul's Cathedral, the Thames Embankment, but the London of Deptford, Whitechapel, Bethnal Green, Bermondsey, but why mention names. There were nearly 75,000 acres in the County of London. He wondered how many of these acres ought to be dealt with in the way he had suggested. Think of the miles upon miles of utterly dead-looking frontages they could tramp past on a wet November day. It could be altered within half a century if they had the courage to tackle it. The actual value of the bricks and mortar which was cumbering the earth in these areas was a small matter compared with the economic losses which their continued existence entailed. London was not a city to be proud of if they knew it. The trouble was that very few people did know it. All they knew was the West End and the main shopping streets and through traffic routes. They did not know what was "behind." The question was, would anything be done, unless some individual came into power who was strong enough to bend the will of the people to the task of replanning. He knew he would receive in reply all the old arguments why it could not be done. His reply was that the most enlightened commercial men to-day did not hesitate to scrap machinery that was obsolete and buy new machinery if by that means they could improve output and lower cost of production. He applied precisely the same argument to wholesale demolition and replanning of the areas of their cities which were manufactured in the nineteenth century. These were obsolete machines, expensive and extravagant to operate. They were a daily and hourly loss to humanity. He made his plea for demolition and replanning without any reference to sentiment. He said it was a paying proposition. He believed that if the question was studied on the plane of economics alone it would be found that the new values would take the place of the old values and would warrant the undertaking financially. Those who liked could assess the value of the sociological factors as they would and add a figure to the sum of advantage.

During the past few decades the intervention of the State had not been altogether beneficial. An enormous number of mistakes had been made. The system of subsidising the building of houses had been disadvantageous in many respects. Again quoting Professor Pigou; the anti-social congestion of the centre had been made worse than it would naturally have been by reason of the virtually higher subsidies which had been given in congested areas. "It needs little reflection to perceive that a bounty differentiating in favour of congestion is the worst possible form of bounty If differentiation is introduced at all, it should favour dispersion." Again, in the matter of road development the policy of the State had led to the worst form of dispersed development. The curse of ribband development had been a direct outcome of the methods adopted in purchasing the land for their new trunk roads and "by-passes." The State had definitely encouraged the building of houses on the new traffic routes. The Rent Restriction legislation, again, had been disastrous from the economic and social points of view. The legislation had checked development, destroyed the basis of proper estate management by diminishing the control of property. It had produced a false position by making the production of houses for the working classes a non-remunerative enterprise. It had fastened the slums upon the community. Town planning legislation so far had done little to benefit the country. It had tended to check development rather than to encourage it. The owner of land did not know where he was or what might happen next.

The real issue at stake was a relatively simple one. Was a "town" a single economic unit and should it be considered as dealt with as such, or was it a congeries of unrelated unconnected economic units which must for ever be considered apart from their environment? He believed that more and more there was a growing feeling in favour of the wider conception—a feeling that was being increased by the study of regional surveys, the discussion of questions of population distribution and consideration of the effect of modern systems of transport communication wholly or partially under State control. Public opinion was beginning to view the whole matter as something apart from the old formulæ of party politics—a matter which was essentially a practical question, and he had very great hopes that the next decade would consolidate that public

opinion in such a way as to render legislative action more easy to introduce and more generally acceptable.

**Discussion.**

Dr. Raymond Unwin said the real difficulty was the fact that regional and town planning depended on looking on a territory as a unit. The whole problem of town design was to lay out the right pattern of building development on a background, which should be open land, but they were up against the assumption that there was no background and no open land, and that there was a presumptive right and expectation that the land for 2,000 square miles round London could be built upon. The town planner found he could not lay out his pattern of building because he was faced with a claim for compensation in regard to every acre of land he wished to deal with. If one person owned the whole of the land, he would build on some of it and reserve a portion for open spaces, knowing that he would not lose by it. As the land was not under one ownership, they had to devise a system of pooling. It was the crux of their town planning problems, and if they could solve it they could go ahead with town planning to a degree of usefulness impossible at the present time.

Mr. S. A. Kelly (Liverpool) said that most of their problems to-day arose from the transport question, for once they made land available by quick-running transport they had developments which those with the greatest foresight could hardly foresee. The mistake made with many clearances in central areas was that they had not been coupled with real replanning schemes, but the tendency of the present day was to deal with this. The subsidy had not led to the development that was hoped, and perhaps it would be better in regard to urban development to apply the subsidy to the land owner for road making. He did not mean to make a grant, but to make use of the local by-laws with regard to the construction of roads, connecting with the main roads, so that land might be economically developed.

Colonel Cobb suggested that the Increment Duty might help towards a solution.

**Specimens of Work done in the Stone Carvers' Class (Modelling) Trades Training Schools.**

Mr. G. L. Pepler said the result of town planning had been to give a greater sense of security. It certainly had been in America, because anyone going to a particular area, had an idea of what the conditions would be, and knew they would be maintained. Others, besides the author, were no doubt disappointed that the performance under the Town Planning Acts had fallen far short of the desire, but if they considered what the position would have been in many places, had it not been for the Acts, they would be reassured. They all deplored the unsightly building taking place round their towns, but the question of the control of design was only in an elementary stage. The R.I.B.A. had now set up panels of advisory architects, and the author might hope that something better would be done.

Mr. Rees Jeffreys said the problem was really how to get a drive behind regional planning. It was criminal, for instance, to see the millions of pounds which had been spent in rebuilding in Westminster without any replanning of the overcrowded areas. He could not see where the drive was to come from. They could continue to make slow progress by the self-sacrifice and intelligence of a few men, but the indifference and stupidity of the people was enormous.

Mr. F. Marsden (Bradford) referred to the difficulties of pooling, where one had a scheme such as he had to deal with, cut up into small building plots, and in which there were 8,000 owners.

Mr. E. Unwin said a solution of the difficulty, which had not been suggested, was to make it a matter of party politics. If one party took it up the opposition would carry it out.

Mr. H. Boas, speaking from Australian experience, urged that a solution lay in the education of the man in the street, and the creation of a strong public opinion.

The President also spoke of the importance of propaganda, and suggested that until the question was seriously taken up by Parliament, and the country, as a whole, realised the importance of it, they would not get a final solution.

The lecturer, in reply, deprecated the making of the subject a matter of party politics, as he thought they should strive to prevent bitterness arising in any quarter. He hoped in a few years they would find a way of dealing with replanning and reconstruction on regional lines by common consent.

# CENTRAL SCHOOL OF ARTS AND CRAFTS

## ANNUAL EXHIBITION.

THERE is a great interest in this exhibition; the enthusiasm of youth pervades it. Not too much "sicklied o'er with the pale cast of thought," it yields the impression of endeavour guided by good spirits, and it is a compliment to the teaching staff that this should be so. The very practical nature of the instruction is in evidence through it all, and the appreciation of the right use of materials which governs the outlook is seen in the exhibits, the results in many instances being quite remarkable. Among the arts and crafts included are architecture, silversmithing, jewellery, metal casting, furniture, stained glass, costume, embroidery, painting and design, of which good examples of students' work are shown in every class.

The architectural exhibits, though not many, seem to us better than last year, and it is a pleasure to state that violent eccentricities of design are nowhere to be seen. Much depends on the direction of students in these days, and whilst we encourage imagination and progress, we must see that they learn to appreciate and understand what are the underlying qualities of all good architectural design. Personally we care little about the close following of tradition or style, but we do ask for good proportion, good outline and mass, refinement of details and a proper sense of scale. The design by H. W. G. Hawkes for a tea pavilion on an island in a public park is nicely proportioned as a plain oblong with hipped roof and with a wide columned verandah and an approach bridge. This is a very satisfactory design. The design by Douglas Harrington has some merit, but the perspective does not do it justice. The design by Frank Mason for the same subject has merit, but the other exhibited designs are not so good, though the design by J. Soper shows promise. The designs for shops and flats, and for a public-house in a University town may be commended. The show of subjects is small, but they suggest that a wise and capable direction is given to architectural studies. The design for a small house by A. B. Waters is a decidedly pleasing essay. The design by D. MacIntosh for a public-house in a University town has some points of decided excellence and is admirably illustrated.

The stained glass this year shows improvement. There is an absence of overmatting, and the glass quality is better preserved—for what is the use of having a beautiful material and then obscuring its translucency so much that its characteristics are lost? The panel by C. Dawson is very successful both in colour and design, and the method of painting is just what is right for glass. The panel by C. Ecroyd is also deserving of praise. Lithography, which is an important feature in the show, has many good examples, the animals by B. Purvis and E. B. Mackinnon being skilful and expressive of a medium which, though a chalk medium, may yet become too chalky; and we feel this a little in the otherwise successful production by S. Clarke Hatton which, though clever, a little exceeds the restraint which is desirable in the use of the material. Fantin Latour, while never allowing a lithograph to look the same as a chalk drawing, at the same time avoided any lack of restraint in the use of the method.

The students of the modelling class, under the efficient instruction of Mr. Garb, give a very good account of themselves. In fact, there are examples, such as the figure in the round by Heath Robinson, and the beautiful statue of a shepherd with a lamb by E. M. Bruce (which cannot be regarded as students' work only), which show an intimate appreciation of form and sculptural requirements generally. While perhaps the exhibition of life studies of the merely imitative kind is not completely avoided, there is something much more than this in the average of the work shown in this class. The model of a bison, by A. C. de Lantour, should be noticed, and much else which lack of space precludes from more than mention, such as the delightfully woven textiles and the good examples of book-binding, "Poems by Masefield," by M. Casey Morgan—the best in its economy of means in producing a very rich effect of tooling and design. A bedspread by E. Potter and B. Blackmore in applique and crewel embroidery is delightful in colour and treatment. Then there are woodcuts and costumes, and the studies of the latter by R. Keating, so full of vivacity, should not be overlooked. And to leave to the last one of the strongest exhibits, that of the pottery class, the animals in brown glazed pottery by D. le-Cocq should be seen, as also the jugs by S. Peereboom, which are good examples of a level of craftsmanship which does great credit to the school. The exhibition remains open until June 26, from 10 a.m. to 8 p.m., and should be visited by those interested in the future of craftsmanship and the promise of the present time.

# ILLUMINATING ENGINEERS' AMERICAN TOUR

MR. G. H. WILSON, B.Sc., A.M.I.E.E., gave a review of the proceedings of the seventh session of the International Commission on Illumination and the International Illumination Congress in the United States in 1928 at the meeting of the Illuminating Engineering Society held at the Home Office Industrial Museum, Horseferry-road, S.W.1, recently. The speaker said that the seventh plenary session of the Commission was held by invitation at Saranac Inn, N.Y. State, in September, 1928, under the presidency of Mr. C. C. Paterson, and by the addition of a tour of American cities and attendance at the Convention of the American Illuminating Engineering Society, at Toronto, the sphere of usefulness of the meetings was considerably widened. The enlarged conference was christened by our American hosts the "First International Illumination Congress."

Twelve nations were represented altogether, and it is of interest that two of them, Brazil and Sweden, were present for the first time. Austria, France, Germany, Great Britain, Holland, Japan, Sweden, Switzerland and the United States provided delegations and Russia representatives, and the success of the meetings was in no small measure due to the interest and enthusiasm of the various groups.

Boston, Philadelphia, Washington, Cleveland, Detroit, Chicago and Niagara were visited, where some study was made of interior lighting. There was evidence in every American city visited of a whole-hearted co-operation between illuminating engineers, lamp and fittings makers and supply companies to engender in the public a realisation of the benefits of good lighting. The lighting load was not considered undesirable on account of its influence on load factor, and when once adopted, as with advantage it might be by supply authorities in all localities, this principle provided a good groundwork on which the illuminating engineer could build. There was little opportunity for visiting private houses during the tour, but the lighting of numerous public buildings was studied in some detail. In the majority of new buildings the lighting was considered as an integral part of the construction and not as a subject divorced from architecture. A notable example was the Philadelphia Museum of Art, in which artificial daylight was so skilfully installed that it was not easily apparent that natural daylight is not the lighting agent. It was learned that the cost at the Philadelphia Museum was only 4 per cent. of the total building cost.

Another class of building in which new methods of design were being employed was the Bank. Mr. J. L. Stair stated at Toronto that the "jail and fortress" type of bank was fast disappearing in America and present designs incorporated lighting fittings which harmonised with the surroundings and brought out the architectural beauty of the interior. The proper quality and quantity of illumination had also to be provided, and the schemes for lighting the grilles and counters showed as much originality as the lay-out of the general lighting. The latest development was the use of the show window for attracting clients to the bank, and excellent results were said to have been obtained by this means.

The demands for development in all branches of illuminating engineering were becoming more and more insistent, and in public lighting this was particularly true. For many years American cities had progressed with "white way" street lighting, treating this as having artistic and advertising value as well as being utilitarian. Numerous installations were seen where rippled glass decorative units were fitted on posts approximately 100 ft. apart with double side spacing. Cleveland had a number of such installations employing lamps from 10,000 to 25,000 lumens rating (approx. 500 watts to 1,200 watts) mounted at 15, 18 or 21 ft. above the street level. These mountings were lower than those common in equivalent streets in this country, and it was the opinion at least of some of the visitors that the lighting would have been improved if the lamps had been higher and if the units had been more directive in character. Refractors were sometimes used within the outer globes, but frequently the bare lamp light was not controlled at all.

The smaller side streets, except in special cases, had not received the attention they were usually given in this country. Beacon lighting was rightly criticised. Some light was often better than none at all, however, and the widely spaced but regular installations in many of our side streets appeared preferable to the rather spasmodically lit or unlit street of many towns in the Eastern States.

The lighting of streets had been a problem in all countries for many years, but lighting for traffic control was relatively new. Traffic density in American cities necessitated action before it had been required in England, but the problem was undoubtedly with us now and we could save the time usually lost in gaining experience, by a study of the systems in America. Automatic colour light signals had largely replaced the point-duty policeman, and they appeared to work admirably. Two or three systems were available, but the progressive system whereby the traffic was enabled to pass down a street at a uniform speed and to cross all intersections without check was undoubtedly the most satisfactory.

The timing devices connected to the signal systems, which were examined at Lynn, synchronised the various signals so that one signal cleared at a definite time after the one before it The period was a function of the distance between crossings and the desired traffic speed, for example, 25 m.p.h., and vehicles moved in groups which arrive at signals during the "Go" period. The rectangular block, of course, lent itself to such schemes, and the bird's-eye view which we had from the top of the Union Terminal Tower in Cleveland (the second highest office building in the world) provided an ideal demonstration of the efficiency with which the system can operate.

Complicated street intersections introduced the difficulties of right and left turns, etc., but with care the system was probably applicable even to the difficult situations in British towns. There was some danger, with the increasing number of street posts, traffic signs and new colour signals, of an approach to the forest of poles at one time so common in the U.S., but which was now fortunately disappearing. There was no need for signals to be unattractive in appearance, however, and in many cases arrangements could be made for their attachment to existing posts.

The increasing number of outdoor advertisements was probably also regarded by many with apprehension, but they seemed bound to come and their commercial value was probably doubled if they were visible at night. The illuminated poster was therefore in evidence in all the cities visited. Three 200-watt lamps in enamelled reflectors appeared adequately to illuminate a 16-sheet poster, but the secret lay in the distance of fittings from the advertisement, which was usually 8 to 10 ft. The reflectors were carried on steel tubing projecting from the top of the poster, and the effect with posters of real artistic merit was excellent. Floodlighting might in some cases come under the heading of advertisement, though installations like that on the Capitol of Washington certainly did not. Many good examples were seen, notably the Terminal Tower, Cleveland, and the Edison Building, Detroit. Silhouetted against the dark sky, the top of a skyscraper was a spectacle if adequate illumination was provided. It was probable that the values we had been accustomed to in this country were low in comparison, for an illumination of 20-foot candles appeared to be required even on light-coloured buildings for an outstanding result to be achieved. On the Terminal Tower 50- to 200-watt, 116- to 500-watt and 68- to 1,000-watt projectors were used to produce this illumination, and the specific energy consumption was 4 watts/square foot.

The shop-window lighting movement in Britain was rapidly catching up to American standards, but the average level of illumination was not yet as high. The units in the United States were usually well concealed, and the addition of high intensity spotlights to the installations enabled items in artistically dressed windows to be singled out, although the general level of illumination was already high.

In concluding the brief account of the tour, reference must be made, said the lecturer, to the numerous works, supply stations, lighting institutes and laboratories visited. The Bureau of Standards was visited, but our stay was of short duration. So also was the visit to the Electrical Testing Laboratories in New York, but the time was sufficient to appreciate the earnestness with which illumination measurements were made, and the accurate and rapid methods which had been developed for lamp photometry and measurements on lighting appliances of all kinds.

# THE ESSEX SOCIETY OF ARCHITECTS.

A special meeting of this Society was held on Wednesday, June 5th, at the R.I.B.A. Several members of the architectural profession practising or residing in the county of Hertfordshire were present. Mr. F. Wykeham Chancellor, M.A., F.R.I.B.A., President, was in the chair

The following resolution was put to the meeting and carried unanimously:—"That the scheme of amalgamation of the county of Hertfordshire with those of Essex and Cambridge under the heading of one united Society be approved, and that the necessary steps be taken to effect the consolidation."

Mr. Percival C. Blow, A.R.I.B.A., of St. Albans, kindly consented to act as provisional Hon. Secretary for the county, and to undertake the preliminary work of organisation in conjunction with the headquarters of the Society.

On the motion of Mr. H. R. Bird, L.R.I.B.A. (Chelmsford Chapter), the following resolution was put to the meeting and carried unanimously:—"That the title of the Essex Society be altered henceforth to that of 'The Essex, Cambridge and Hertfordshire Society of Architects.'"

All members of the R.I.B.A. who either practise or reside in Hertfordshire, and who are desirous of joining the new Chapters in Hertfordshire, are invited to attend a meeting of Hertfordshire architects, which will be held at the R.I.B.A. on Tuesday, June 18, at 4 p.m.

Agenda:—(1) The preliminary arrangements will be explained by Mr. Blow, who has undertaken to act as Secretary pro tem. (2) Mr. Ian MacAlister (Secretary, R.I.B.A.) will explain the advantages of these allied Societies. (3) To settle the number and districts for Chapters in Hertfordshire. (4) To appoint Chairmen and Local Secretaries. (5) To enrol members. (6) Any other business.

Those who are unable to attend this meeting are requested to send their names to Mr. Percival C. Blow, A.R.I.B.A., Bank Chambers, 1, High Street, St. Albans, Hertfordshire, who will furnish them with information after the meeting.

The Joint Hon. Secretaries are Messrs. D. N. Martin-Kaye, F.R.I.B.A., and E. J. Symcox, A.R.I.B.A.

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**An Appointment.**

Mr. Frederick Walter Purse, M.I.E.E., M.I.Mech.E., who for the past ten years has been chief engineer and manager of the West Ham Electricity Department, the largest municipal electricity undertaking within 100 miles of London, has been appointed chief engineer to the London and Home Counties Joint Electricity Authority.

# THE POWERS OF THE ARCHITECT—XVI

By W. T. Creswell, Barrister-at-Law. Hon A.R.I.B.A., Associate (late Fellow) of the Surveyors' Institution.

**Bills of Quantities Prepared by an Architect.**

WITH his other work, an architect may, if he so desires, include that of preparing bills of quantities for the work he has designed, or indeed, actually for those designed by other architects; but it is doubtful whether he has an implied authority to do so in respect to his own work, and it is very unusual for him to act as quantity surveyor to a fellow professional; and, by many, it is still questioned whether he should prepare quantities in either instance.

For obvious reasons, the exercise of this power is to be deprecated. In some localities, especially in the North of England, an authority for the architect to prepare his own quantities is implied by custom; but gradually the custom is dying out and the course of employing a quantity surveyor, as is usual in the South, is being increasingly followed even in these districts

**Responsibilities.**

Although it is not the *usual* practice then for an architect to prepare exact quantities, if he does so he takes on himself the functions and responsibilities of the quantity surveyor, in addition to those of architect, and the quantities must be in detail and not perfunctory, as for example, by "taking off" "one staircase complete to drawing."

He must remember that the object of bills of quantities is to prepare accurate estimates of the quantity of work to be done, and accurate descriptions of the materials to be used in the execution of the particular work contemplated, and that he is liable to the person who employs him for any negligence in the same descriptions and estimates.

**The Custom Doubted.**

The implied custom, previously referred to, has been doubted, although the Court has (in at least one instance) supported it where it was shown the custom was known both to the employer and the architect.

In Lansdowne *v.* Somerville (1862) 3. F. and F. 236, an architect had prepared quantities for a building contract which was not carried out, and he was nevertheless allowed to recover from the employer his fees as quantity surveyor also, as a custom known to the parties. The judge left the following questions to the jury: "Was there such a custom? Was it known to the parties? Did they contract on the footing of the custom?" The jury found affirmatively in each case.

The general nature of an architect's employment is against any such implied authority, and it appears clear that even when a claim is made on such an implied custom there is no consequent implication of an authority to charge fees for the bills of quantities through the contractors, for it is evidently not part of the architects' contract of employment between himself and the employer to certify through the contractor for payment of his own fees.

In Beattie *v.* Gilroy (1882) 10 Ct. of Sess. (4th series) 226, there was a building contract where an account for extras was presented after the work comprised in the contract was completed. A surveyor was called in to take the measurements; and according to the usual practice, the surveyor's fee was included in the contractor's account. It was held that the surveyor was employed in the interests of the employer, and that the fee was included in the contractor's account for convenience and, without special employment; and that no account for payment of the surveyor's fees would lie against the contractor at the instance of the surveyor.

In all cases when an architect has, under the contract, to certify the balance due to the contractor, it must be understood that he has also an implied authority to measure the variations for the purpose of ascertaining the balance due.

# ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

***We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.***

***May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting!*—ED.**

**Cleaning Artificial Stonework.**

[REPLIES TO "E. F.," JUNE 7.]

SIR,—If the artificial stone is properly made, with a good thickness of stone-dust finish, the surface may be rubbed down slightly to remove the markings, but the likelihood of their reappearing remains. I think the local police hold a more likely remedy than the paint manufacturer.

WITHOUT OPTION.

SIR,—"E.F." will find that two coats of manganese silicate will obliterate the writing, etc., and make the stonework difficult to write on, and without disfiguring the texture of the stone.

CHARLES A. LONGLEY.

**Builders and House Designs.**

SIR,—I can compliment neither of your architect correspondents upon their view of the point at issue. "Lost Profits" appears quite content that builders and architects should enter into competition, and even offers the R.I.B.A. scale of charges for the builder's use. "A.R.I.B.A." desires to be employed by the builder, and leave the client's interests in the latter's hands. Both miss the obvious fact that no man can efficiently carry on a builder's business and act as an architect at the same time. The R.I.B.A. scale of charges is for architectural services efficiently carried out, and we shall never get the public to recognise the fact while we offer professional protection to a trade which is trespassing upon the architect's legitimate field of action.

ARCHITECT.

**School Buildings.**

SIR,—I should be glad to be recommended a good text-book upon secondary school buildings, revised and thoroughly up to date. Can you or any of your readers assist me?

DESIGNER.

**Final Accounts.**

SIR,—Practice seems to vary as to the occasion on which to agree final accounts. Some seem to settle these in conjunction with the issuing of the completion certificate, certifying then for the exact cost less the exact retention money, while others certify approximately the same on completion, but agree accounts in detail only when the maintenance period is finished. I should like to hear opinions as to which is the more desirable practice.

PRACTICE.

**Concrete Floors.**

SIR,—Is there any preparation available for covering concrete floors in order to prevent the dust arising? A large basement with a concrete floor is used for the storing of books, and though the traffic is very slight the books soon become smothered with dust. The concrete surface is new and smooth, and as the entire building is exceptionally well constructed, I suppose the quality of the basement floor is thoroughly sound. The librarian says he has seen floors covered with a preparation resembling paint which appears to retain its appearance for a considerable time and does not create dust. Preparations thrown down to prevent dust arising while the floor is being swept are useless. Something to prevent the surface being converted into dust is required. Any information would be appreciated.

W. B.

[***A simple and effective means of preventing concrete floors dusting is the silicate of soda treatment (silicate of soda is, of course, commercially known as water-glass). In this treatment the surface is prepared by thorough cleansing with clean water. To get the best penetration the concrete must be thoroughly dry, especially before the first application, and if practicable it is well to let it dry for several days after the first scrubbing. The silicate solution is made up immediately before using (one gallon of silicate of soda solution is diluted with four gallons of water, and the resulting five gallons will cover 1,000 sq. ft. of surface with one coat). The solution may be applied with a mop or hair-broom, and must be continuously brushed over the surface for several minutes to obtain an even penetration. An interval of 24 hours should be allowed for the surface to harden, after which it is scrubbed with clean water and allowed to dry for the second application. Three applications made in this manner will usually suffice. When properly applied, the treatment gives a very hard surface, uniform in appearance.]

# LAW REPORT

CHANCERY DIVISION

(Mr. Justice Romer).

**DEFINITION OF A "BUNGALOW."**

**Ward v. Paterson.**

The question as to what a bungalow is was raised in this action, which was brought by Mr. Charles Andrew Ward, of Aldeburgh, Suffolk, against Mrs. Louisa Sophia Paterson for an injunction to restrain her from erecting on a plot of land at Aldeburgh any other building than a bungalow.

Mrs. Paterson bought a plot of land from the plaintiff, and proceeded to erect on it a building which the defendant said was a bungalow, but which the plaintiff said was a two-story house, and therefore, as he alleged, outside the terms of the covenant she entered into when she bought the land. The plaintiff said the building she had put up obstructed the view from his house.

His lordship, after hearing the evidence of a number of architects and builders, and after inspecting many drawings and plans in *The Builder* and other technical journals, said the word "bungalow" did not now necessarily mean a one-story building, because there might be in the roof rooms which might be habitable. He attached more weight to the evidence of the defendant's architects than to that of the plaintiff because when once it was admitted that a bungalow might have rooms in the roof it did not seem reasonable to suppose that where a room in the roof was a box-room the building was a bungalow, but where the room was a bedroom it was not a bungalow. He accepted the following as the definition of a bungalow:—

"A bungalow is a building of which the walls, with the exception of any gable, go no higher than the ground floor, and of which the roof starts at a point substantially no higher than the top of the wall of the ground floor, and that it does not matter in what way you utilise the space which is left in the roof of a building so constructed."

The defendant's building, he held, came within this description and he dismissed the action, with costs.

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**Incorporation of Architects in Scotland: Royal Charter Received.**

It was stated at the annual convention of the Incorporation of Architects in Scotland, in Glasgow, that the Royal Charter granted last year had been received, and that the Incorporation would now be known as the Royal Incorporation of Architects in Scotland. Fellows will use initials F.R.I.A.S.

# THE BUILDING TRADE

## HARDNESS TESTING OF PLASTERS

By A. M. GILES, B.Sc., A.I.Struct.E.

It is not always recognised that there are certain known tests for all the materials used by builders. Many builders do not consider it necessary to go into such elaborations. They have always found the supply of the materials that they use to be quite good enough for the work they had in hand. It is more than likely that these particular people do not know that, in most cases, the materials will have undergone certain tests before being supplied to them. On the other hand, there are many who do realise the value of testing, for certain properties, the materials they wish to be used on a certain job, and only a short time ago the writer was asked to make tests upon certain kinds of plaster for the purpose of determining the property of hardness or the resistance to indentation.

Generally speaking, the hardness of materials may be classified under one of the following heads, viz. :—(*a*) the resistance to cutting, (*b*) the resistance to abrasion or scratching, (*c*) the resistance to indentation. It is not unusual to find that a material which offers a high resistance to indentation is not necessarily of great strength. It is, however, stated by some authorities that resistance to indentation is in some manner related to the tensile strength of a material.

The amount of indentation, or denting of a material, has been made use of in order to obtain a number which may be called its hardness. By some people the depth of the indentation is measured and from this the position of the material in the hardness scale has been determined. This method, however, does not appear to be quite as satisfactory as that of measuring the diameter of the top of a dent which has been formed either by impact or by the sustained pressure of a hard steel ball upon the given surface.

**Brinell's Formula.**

Most of the hardness tests that have been carried out have been confined to the determination of the hardness of such substances as steel. In fact, a very exhaustive table has been drawn up and this gives a series of hardnesses, any one of which, if multiplied by a stated coefficient, will give the approximate tensile strength of the material, or probably it is better to say the tensile stress at the rupture point of the material.

Briefly stated, Brinell's method of testing for hardness consisted of pressing, by a given weight, a steel ball of 10 millimetres diameter on to the surface to be tested and allowing it to remain in that position for about 30 seconds. The diameter of the indentation was then measured very accurately, and from this and the known diameter of the ball, as well as the weight pressing upon it, one was able, by a certain formula, to calculate the hardness of the material.

Brinell's formula is :—

$$H = \frac{P}{\frac{\pi D}{2}\left(D - \sqrt{(D^2 - d^2)}\right)}$$

in which

*H* gives the hardness number,
*P* is the pressure in kilogrammes,
*D* is the diameter in millimetres of the ball,
*d* is the diameter in millimetres of the indentation,

and the value of $\pi$ is taken as $3\frac{1}{7}$ or 3.1416.

**Relative Numbers.**

Of course the number obtained for the hardness is purely relative or arbitrary. There is no absolute standard. A known hard substance has to be taken for the starting point, and the numbers obtained for all other materials are compared with the number for the given substance.

**Test Apparatus.**

The weights used by Brinell varied from 500 to 3,000 kilogrammes, that is, from about half a ton to about 3 tons. These weights were a great deal too large for testing plaster hardness. Further, as Brinell's apparatus was not available, an adaptation of it had to be used, and this, over a great many tests, gave very consistent values for the hardness numbers. The accompanying diagram will help to explain how the tests were carried out.

First, as to the constant weight which is shown as shaded in the diagram. This is an ordinary 56-lb. weight, into the middle of the bottom of which was fixed a small steel ball of $\frac{3}{4}$ in. diameter. Rather more than half of it was left projecting. To the top of the weight were fastened four flat iron bars in directions north, south, east, and west; that is, so as to be in the directions of two lines at right angles to one another. Two of the bars, shown in the figure, are marked *CC*. A circular hole was made in the end of each of the bars. The total weight was now exactly 60 lb.

Four uprights, two of which are marked in the figure *BB*, were fixed into a base plate in such positions that the holes in the ends of the four pieces fixed at the top of the weight should pass up and down the uprights quite freely. The object of this arrangement was to keep the weight quite vertical when it was resting on the sample. The weight was then suspended in position from the rope of a jib-crane, as shown in the figure. The crane, of which only the top part is given, was really a very good one for the purpose, since by an arrangement of toothed wheels the drum was so geared that the weight could be raised or lowered very easily and very slowly.

The sample to be tested, marked *A*, being placed in position, the weight was then lowered very gradually until it rested entirely on the surface of the given sample. It was left pressing on it for 30 seconds, at the end of which time it was quickly raised. The process was repeated three times for each sample so that an average or mean value of the three diameters of the indentations could be obtained. The diameters of the indentations were measured by a travelling microscope.

**The Samples.**

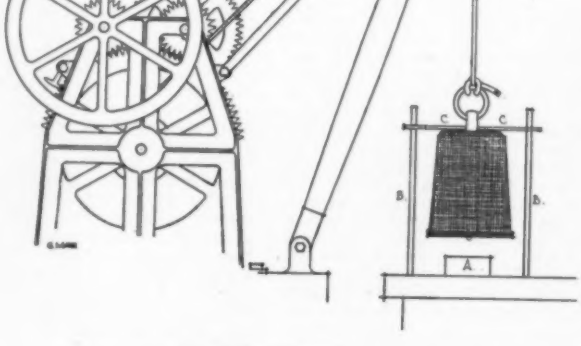
No particular care was used in preparing the samples to be tested; in fact, it was desired that they should be in the same condition as if they had been actually made by the workmen employed on any particular job. Actually, the plaster was put into moulds, by a workman, from some that he would have used had he been going to do some actual plastering. Further, since among the samples tested there were some proprietary articles, we have called them *A*, *B*, *C*, and *D*. Keene's cement was used as a standard, and the tests for hardness were made at the end of 1 day, 3 days, and 15 days.

The following table gives the hardness numbers obtained for a few of the samples tested. It should be noted that they are compared with the numbers for Keene's cement :—

| | *Keene's* | *A* | *B* | *C* | *D* |
|---|---|---|---|---|---|
| 1 day | 680 | 136 | 305 | 256 | 163 |
| 3 days | 1570 | 136 | 424 | 453 | 172 |
| 15 days | 2930 | 145 | 870 | 1212 | 202 |

The table is of interest from several points of view. In the first place, for example, it gives an experimental verification of the general belief that the surfaces of plasters become harder with age. It is curious to note that two of the samples, viz., *A* and *D*, show little if any change in this property in the first three days. There is an increase, however, in the hardness of these two samples after fifteen days. The percentage increase, though, is hardly comparable with that of the others, viz. : Keene's and samples *B* and *C*.

A very large number of tests was undertaken with plasters of different kinds, compositions, and consistencies; but as it is thought an account of the work may not be of general interest, it has not been introduced. The firm for which the work was undertaken has expressed itself as being extremely pleased with the results.




**Test Apparatus.**

# THE LANDLORD AND TENANT ACT, 1927.

Two cases under the Landlord and Tenant Act, 1927, have recently come before the Courts, the first of which raised a point of some importance (Stumbles *v.* Whitley, *The Times*, June 1).

The plaintiff was the assignee of a lease dated September 28, 1921, under which the Royal Sands Hotel and certain fishing rights on Slapton Ley had been demised for seven years from March 25, 1922, to the plaintiff's predecessors in title. It is not quite clear from the report how the rent for the hotel and the fishing rights were charged respectively, and we only quote from the report, which states that the premises were demised "at rents of £110 a year for the hotel and summer fishing rights, and £55 for the winter fishing rights."

On March 25, 1928, the plaintiff had given notice requiring a new lease under section 5 of the Landlord and Tenant Act, alleging that though he would be entitled to compensation for goodwill under section 4, the sum that could be awarded to him under that section would not compensate him for the loss of goodwill if he removed and carried on business in other premises. The matter had under section 21 sub-section (2) been referred to a referee, who found that the business had increased during the plaintiff's tenancy, and held that Slapton Ley, with the fishing rights, formed part of the premises at which the trade or business was carried on, and considered that it was reasonable under the circumstances that a new lease should be granted under section 5 sub-section (2) and fixed the term as seven years at a rental of £205 a year.

When this report came before the county court judge for consideration the defendant filed a notice for variation of the report on the ground that the fishing rights were not "premises" within the meaning of the Act, whilst the plaintiff asked that the report should be confirmed, contending that as the tribunal under section 5 sub-section (2) has power to "order the grant of a new tenancy for such period (being a term of years absolute) not exceeding fourteen years, and on such terms as the tribunal may determine to be proper," it would not be "proper" to exclude the fishing rights. The judge held that the fishing rights were not "premises" within the meaning of the Act. On appeal to a Divisional Court it was, however, held that the fishing rights over the water were included as part of the premises demised by the lease and the tenant was entitled to have them included in the new lease.

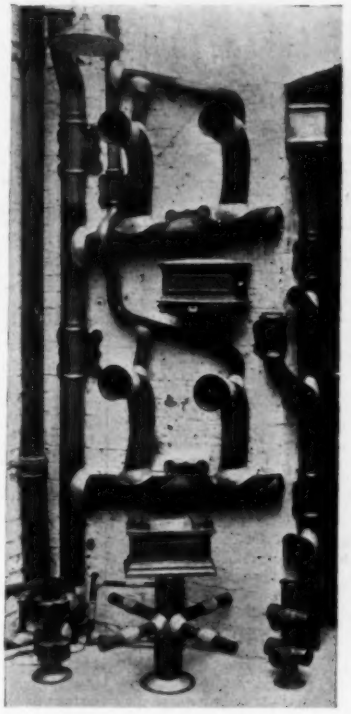
There is not much assistance to be derived from the Act on what is to be included by the word "premises." In section 4, relating to goodwill, which really governs section 5 in applications for a new lease, the Act speaks of "a holding" to which this part of the Act applies, and this is explained as follows in section 17 sub-section (1), "The holdings to which this Part of this Act applies are any premises held under a lease, other than a mining lease, made whether before or after the commencement of this Act, and used wholly or partly for carrying on thereat any trade or business. . . ." The expression "lease" is amplified in section 25 as meaning "a lease, underlease, or other tenancy, assignment operating as a lease or underlease, or an agreement for such lease, underlease tenancy, or assignment," and although this definition in section 25 is prefaced by the words "unless the context otherwise requires," it has now been generally accepted that there is nothing in section 17 sub-section (1) to limit the general definition.

Taking the word "premises" in its ordinary meaning, "that which has already been stated, or property already described," the test under section 17 would appear to be whether the property held under a lease was used wholly or partly under that lease for carrying on thereat any trade or business, and the Court appears to have held that the fishing rights were demised as appurtenant to the property used for business purposes.

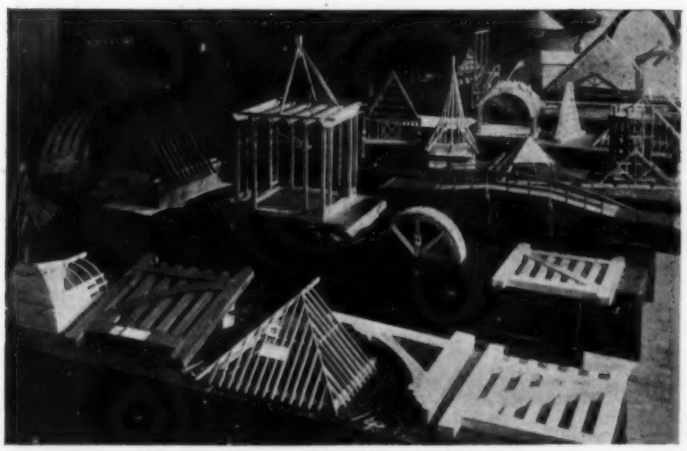
The point decided in the second case, Donegal Tweed Company, Limited and Others *v.* Stephenson and Others (*The Times*, June 1), is a short one. Where a new lease is claimed section 5 sub-section (1) provides that notice of the claim may be served on the landlord at any time within the period allowed under section 4 in respect of a claim for goodwill, and that is (1) in the case of a tenancy terminated by notice, within a month of the service of the notice on the tenant; (ii) in any other case not more than 36 nor less than 12 months before the termination of the tenancy; but section 5 sub-section (2) provides that where such a notice is so served application to the tribunal must be made either by the landlord or the tenant not less than nine months before the termination of the tenancy, or where the tenancy is terminated by notice within two months after the service of the notice.

In the above case the applicants were tenants of premises in Lord-street, Liverpool, and they had given the notice to the landlords that they would claim a new lease under section 5, within the time prescribed under section 4, but they had failed to make the application to the tribunal within the time prescribed by section 5 sub-section (2), that was in this case nine months at least before the expiration of their lease. The applicants then applied to the county court judge to extend the time for making the application, relying upon Rule 14 (3) of the County Court (Landlord and Tenant) Rules, 1928. Order 14 (1) relates to "Applications," and provides that "Any party may at any time apply to the court for directions," and then sub-rule (3) provides: "The Registrar may at any time report to the judge in relation to such application, and the judge may thereupon give or forward by post to the Registrar such directions in writing as may be necessary, including an order for the extension of any time limited for the doing of any act or thing provided for by the Act of this order."

The County Court judge held that this rule did not give him jurisdiction to entertain an application for a new lease made out of time, and this decision was confirmed by a Divisional Court. The Court held that the rule gave the judge no authority to alter the times fixed by the statute, as this would be *ultra vires*: the rule was a rule as to procedure, but where there was no jurisdiction *ab initio* there was no real proceeding to which it could apply. It is thus important to remember that where in the Act a definite time is fixed within which a specific step has to be taken or act done, that is a condition precedent to give jurisdiction.



**Specimens of Work done in the Plumbers' Class, Trades Training Schools.**



**Specimens of Work done in the Carpenters' Class, Trades Training Schools.**

### British Water Supplies: Suggested National Advisory Body.

In the course of the Presidential address to the Institution of Water Engineers, who recently held their annual general meeting at Birmingham, the new President, Mr. F. W. Macaulay, chief engineer of Birmingham water department, in his address, said that of the greatest importance in relation to the proper conservation, allocation, and the restoration and preservation of the purity of our national water resources was the most complete survey possible of those resources, whether surface or underground. He suggested that the obtaining of a collection and collation of facts and figures for such a survey might well become a very important factor to bring about the establishment, if not of a statutory water commission, at any rate of some body capable of treating all water questions from a national point of view and of giving disinterested and technically sound advice upon them where it was most needed.

# PAINTING OF CEMENT WORK

A DEBATE on the subject of "Painting of Plaster and Cement Work, New and Old," took place recently at Painters' Hall, between the Incorporated Institute of British Decorators and the Oil and Colour Chemists Association. The President of the Institute, Mr. Godfrey Giles, F.I.B.D., and Mr. Noel Heaton, Vice-President of the Association, presided.

Mr. A. D. Cowper, M.Sc., A.I.C., of the Building Research Station, Garston, said that, roughly speaking, the plasters used commonly in England could be divided into two main heads, namely, gypsum plasters made from calcined gypsum, and the lime-containing plasters. Gypsum plasters were not always innocent of lime and therein lay a tragedy for some architects. The lime-containing plasters included the cement-gauged lime plasters, which were not very much used here, but were growing in use in the States and on the Continent, and the straight lime plasters and plasters gauged with gypsum; perhaps the commonest used nowadays being gypsum-gauged lime putty plaster for finishing coats.

Portland cement, although it might not have much free lime when it was ready to use, afterwards liberated about 7 per cent. of free lime when it was set. Of course, the lime plasters themselves contained free lime for many, sometimes for hundreds of, years, contrary to the rather glib statements of the text-books. On the other hand, certain of the gypsum plasters often contained free lime, particularly proprietary plasters.

Experience had been accumulating at the Building Research Station during the past year, partly conveyed in the form of inquiries addressed by practical men to the Station as a result of paint failures, partly the result of definite scientific research directed to this end. Regarding the finding of a possible way out from the difficulty of free lime in plaster, the speaker said that a number of panels had been prepared at the Building Research Station in Portland cement, Keene's cement, lime-gauged Portland cement, proprietary hard wall plaster of the lime-accelerated type, gypsum-gauged lime putty plaster, straight lime putty plaster and high aluminous cement respectively. One Portland cement panel, in addition, has been prepared with a priming of zinc sulphate solution. The panels had been painted with ordinary oil paint, using a pigment (Prussian blue) fugitive with lime, in a series of broad stripes, at various intervals of time from the moment when the finishing coat of plaster had been applied: at once, after three days, seven days, etc., up to three months. Careful observation had been maintained on the panels, and periodically tests had been made according to different methods of moisture and alkalinity on portions of the surface left unpainted for this purpose. The panels were mostly in three-coat plaster, the lower undercoat being uniformly Portland cement on lathing, and they were arranged in a corridor in an unheated building, with fairly good ventilation. After many months' exposure the rather unexpected result was obtained that all the panels, at whatever date they had been painted, were sound, with the exception of the Portland cement and lime-gauged Portland cement panels, where the paint was discoloured and had failed badly (though not completely over the whole area) on all but the three-months' specimens. The zinc sulphate priming had not had any noticeable effect, since failure was as complete on this panel as on the plain Portland cement. Evidently, under the fairly favourable drying conditions in these test panels, the free lime had had no chance to come out in the case of the more porous plasters, even in the case of the straight lime putty plaster, which had perforce to be applied in a more leisurely manner than the gypsum plasters, and had therefore had some opportunity of carbonating superficially.

The cause of the marked failure must then be the condensation of moisture at night on the colder surface of Portland cement, followed by solution of the free lime present in the condensed and absorbed moisture and movement of this solution to the surface during a subsequent period of favourable drying conditions.

Dealing with the practice of following up immediately, on a Keene's cement surface with the priming coat, after the application of the finishing coat of plaster, the lecturer said that it had lately been discovered that failures of paint over plaster, where the practice had been followed, and which had been reported to the Building Research Station, usually accompanied by a request for explanation of the failure, confirmed strongly the principle that the water in the plaster must be allowed ample time to escape through unclogged pores before any sealing coat of paint was applied, apart from any question of chemical action of lime in the plaster. This point would apply even where there was no free lime at all.

A third point was in the nature of a tentative suggestion thrown out, to eliminate at one step the danger of free lime in the plaster acting on the oil paint, by choosing a plastering material practically devoid of free lime, but with most of the valuable properties of Portland cement, namely, aluminous cement. Practical trials on small panels at the Building Research Station had failed to bring to light any formidable technical difficulties in the use of the latter material as a thin finishing coat over ordinary Portland cement undercoats.

The last point was on a curious type of paint failure over Keene's cement plaster, which had been investigated during the year. It was not unique, but of a type seldom heard of, so that it might be a novelty to some of those present. The failure took the form of a discoloration, sometimes pink in colour, in places of a dirty greenish or yellowish or purple tint, on white paint over plaster. Of course, the plaster was blamed. They tested the plaster and found it was quite an ordinary hard gypsum plaster. The discoloration had been traced to a low form of vegetable life, a "fusarium," which developed, apparently from air-borne spores, in the linseed oil of the paint under favourable circumstances. Damp appeared to be one predisposing circumstance for the growth, but a definite infection was necessary. The mould could be cultivated artificially. Wherever there was sunlight we got the pink tint and elsewhere the yellow or green. Careful disinfection was evidently called for when such a growth appeared anywhere, and it was preferable to put a little disinfectant in the paint when renewing it.

Mr. F. Dakin, F.I.B.D., said that it had been suggested that where plaster was painted, one ought to wait about two years before putting any paint on a new plaster. He asked whether it was not possible to paint sooner.

Mr. Cowper replied that if one had to paint under eighteen months or two years, it was best to leave the pores open by using the cheapest kind of distemper with a casein or glue base and letting it stand. Let it come off, if it must, and as soon as all the moisture had really come out, scrape off the bad distemper and put on the good paint. For the first year or eighteen months there must be nothing on the wall but this porous distemper or some other similar treatment which did not close the pores.

Mr. Noel Heaton said that for years past it had been his strong opinion that painting in oil was the worst possible treatment one could have for plaster. Lately he had come to the conclusion that there was perhaps one worse method, and that was painting in nitrocellulose. His suggestion was that it should be aimed to develop a vehicle for the pigments which would leave an entirely inorganic film on drying. The pigments would then be bound to the plaster by a material which would not change in colour or elasticity in course of time, and which would not be affected in any way by the alkaline salts developed by the setting of the plaster.

A painting executed in this manner would also be porous instead of sealing the surface with a more or less waterproof film. That would overcome the greatest difficulty of all, that of allowing free exchange of moisture between the plaster and the surrounding air without injuring the painting.

# ACCIDENT PREVENTION

WE take the following extracts from an article on this subject in *Industrial Welfare*, based upon the system in vogue at Messrs. G. & T. Earle's, Ltd., cement works:—It is generally agreed that the human element plays the greatest part in all accidents, and therefore it is from the workers themselves that co-operation and general education in safety methods must be looked for. First of all, the management made a comprehensive inspection of the factories through the Safety First Committee for the guarding of all machinery, this being, of course, in addition to the guards required under the Factory Acts (1923). Methods have been adopted to invite the interest of the workers under the following heads:—

(*a*) Between each factory;

(*b*) In each factory departmentally.

Under (*a*) 1. Messrs. Earle's have entered a competition with about 35 other cement works for an annual challenge trophy which is presented to the factory which records the least number of lost-time accidents in each year based on the frequency rate, namely:—

$$\frac{\text{No. of Lost-time Accidents} \times 1{,}000{,}000}{\text{No. of hours worked.}}$$

This method of reckoning makes it fair to all concerned, because naturally the number employed in each factory varies.

2. In addition to this the firm has its own challenge trophy for the Hull works and branches, which has been presented by the directors of the company. This trophy is competed for by every section of each works ("sections" meaning the division of each factory personnel for the purpose of electing advisory or works committees. Every worker in the company's employ is therefore included).

Under (*b*) the firm also has a quarterly competition, and in this there is very keen interest amongst the workers, for all sections of the factories vie with one another to have the best record, and it is here, in the opinion of Messrs. Earle's, that the fundamental link to success lies. Any section of any factory which records the least number of accidents in each quarter is entitled to a metal flag, which is officially presented by the works manager.

In addition to this, and in order to keep up the interest of the workers daily in the prevention of accidents scheme, there is displayed as an experiment at one of the works the white figure of a man on a black background climbing a ladder, the rungs of which represent days, and so long as there is no lost-time accident he keeps on climbing at the rate of one rung per day; but immediately an accident occurs which involves loss of time at work under the ruling of the W.C.A. (*i.e.*, three days off), the figure drops to the bottom of the ladder and starts again. The "ladder man" has only been installed for three months, but Messrs. Earle's are convinced that he will play an important part in the general scheme, and are considering the adoption of the same idea at other factories.

# BOOK REVIEW

*Practical Steam and Hot Water Heating and Ventilation.* By ALFRED G. KING. London: Crosby Lockwood & Son. Fifth edition. 1925. Price, 25s. net.

From the preface, as well as the text, we learn that this work is one that is primarily addressed to all those engaged in the construction and fixing of systems of artificial heating to buildings. Probably no other craft has suffered more from hostile criticism—except possibly the plumber's—from the general public than those entrusted with the solution of the problem of heating and ventilating a building. Much of this criticism is unfortunately difficult to refute, but there are not wanting many instances in one's experience where such criticisms are quite just. The problem is exceedingly difficult, because there is no universal standard. A freezes where B opens all the windows and perspires freely. C cannot stand a draught, whilst he "enjoys" the breeze found at the bows of a steamer. What is a draught? Possibly, one answers, air moving locally constantly in one direction; exactly, but how fast may it move before it becomes a draught? The author gives no information upon this point, but he does say that "from a loose and haphazard method of figuring and installing work [*i.e.*, heating and ventilation] of this character, it has reached a scientific stage, and as such is more or less understood by a large majority of those engaged in the business." This is excellent news, and will be welcomed by many of our readers. Turning to the text at the foot of page 19, the author writes "that a horse power represents the energy developed by evaporating 2.655 pounds of water into steam, and which is sufficient to supply 100 sq. ft. of radiation. Furthermore, a horse power represents the condensation from 100 square feet if direct cast-iron radiation or approximately 90 square feet of pipe radiation or heating coils." As an *approximation* possibly, but in a chapter dealing with "Heat," generally, surely this is loose writing, for the energy per pound of steam depends upon the temperature of the feed water supplied and the pressure at which the steam is generated. Also the amount of radiation depends upon the temperature of the steam within, the temperature of the air without the coils, the velocity of flow of the steam within and the air without the coils, as well as upon the nature of the surfaces in contact with the air and steam. Usually the thickness of metal is quite insufficient to affect materially the rate of radiation at all in comparison with the other factors mentioned, so that the idea conveyed by "cast-iron" radiation as a unit is rather amusing. Also *power* is the *rate* of expenditure of energy. One pound of water may be evaporated in one minute or in one day, the *energy* required being the same in each case, but the power required is as 1,440 to 1.

The definition of specific heat given on page 21 is incorrect.

The author puts heating systems based upon steam, hot water, or vapour in the forefront, as the most generally useful and efficient means of heat distribution in buildings, and the major part of this book is devoted to the discussion of "boiler surfaces" and settings, boiler trimmings (?) and fixtures, chimney flue, combustion, pipe and fittings, valves, forms of radiating surfaces, locating radiating surfaces, estimating radiation, the several systems of steam heating, hot-water systems, pressure systems, accelerated systems, &c.

**This book contains a large amount of valuable practical information, and discloses fully how our American friends deal with this problem, but we must confess that we have found it somewhat reticent upon some points on which we wished to compare notes with the author's experiences. The pipe connections for the domestic hot-water supply shown in Figs. 335 and 336, amongst others, are not the best in our experience, whilst the storage tanks are not the best shape. The book is well printed and illustrated, and will doubtless materially assist its readers and stimulate them to take their profession more seriously.**

**Masonic Peace Memorial Buildings: Detail of Steelwork.**

MESSRS. H. V. ASHLEY and WINTON NEWMAN, FF.R.I.B.A., Architects.

**Masonic Peace Memorial Buildings, Great Queen Street, W.C.: General View of Site.**

MESSRS. H. V. ASHLEY and WINTON NEWMAN, FF.R.I.B.A., Architects.

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**Masonic Peace Memorial: Various Works.**

The substructure of this building is now approaching completion on the site in Great Queen-street, Drury-lane, W.C.2. The steelwork, of which no less than 1,750 tons has been used, has been supplied by Messrs. Archibald Dawnay & Sons, Ltd., of Battersea, S.W.11. It has been erected under the supervision of Messrs. Caswell Cranes & Erections, Ltd.

An important part of the work is the sinking of the artesian well. This is being sunk by Messrs. Le Grand, Sutcliff & Gell, Ltd. The waterproofing of the basement, and the pipe and ventilating ducts below basement level, is provided for by the admixture of 5 per cent. of "Pudlo" brand waterproofer with the cement in the concrete. The concrete is a 4.2.1 mix, and is made with non-porous ballast aggregate. This has greatly simplified the problem presented by a complicated network of very massive reinforced concrete beams that form the foundation for the tower. These beams, being formed of waterproofed concrete, link up with the reinforced concrete retaining wall to other frontages which are similarly waterproofed, thus forming a complete waterproof enclosure to the basement. The architects are Messrs. H. V. Ashley and Winton Newman, FF.R.I.B.A.; consulting engineers, Messrs. Whitaker, Hall and Owen, and the contractors Messrs. Holloway Bros. (London), Ltd.

**Proposed Hotel, Devil's Dyke, Brighton.**

The Brighton Town Council propose to erect a new hotel at Devil's Dyke. Plans have been prepared by Messrs. Clayton and Black, AA.R.I.B.A., 10, Prince Albert-street, Brighton.

# NEW BUILDINGS IN LONDON

*The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned.*

**Becontree.**—BUILDING.—The London C.C. have approved the leasing of a plot of land at Bennetts Castle-lane, Becontree, to the United Dairies, Ltd., for the erection of stabling and van sheds.

**Berner-street.** — EXTENSIONS. — Messrs. G. E. Wallis & Sons, Ltd , of Medway House, Old Cavendish-street, W.1, are the builders for the extensions to the premises of Messrs. Potter & Clarke, in Fairclough-street and Berner-street, E. Messrs. Wheat & Luker, 19, Basinghall-street, E.C.2, are the architects and surveyors. The contract price is £40,808.

**Chancery-lane.**—PREMISES.—Mr. Douglas Wood, F.R.I.B.A., 35, Craven-street, Strand, W.C.2, is the architect for a block of premises at 37-39, Chancery-lane, W.C. No building contract has yet been let.

**Curzon-street.**—ADDITION.—The Trustees of the Third Church of Christ Scientist have in contemplation the completion of their edifice. The architects are Messrs. Lanchester and Lodge, FF.R.I.B.A., 19, Bedford-square, W.C.1.

**Ealing.**—SHOPS.—A scheme is to be commenced for the erection of a block of shops and flats on a site at The Green, W.3. The tender of Messrs. G. S. Lewis and Bros., of Castle-street, Reading, at £7,250, has been accepted.

**Eltham.**—HALL.—Messrs. W. Mills and Sons, builders, Woolwich-road, S.E.10, on behalf of the Rev. Abbot White, have submitted plans, which have been approved, to the Woolwich Council for a church hall in Appleton-road, Eltham.

**Golders Green.**—FLATS.—A large block of residential flats is to be erected on a site in Bridge-lane, N.W. The builder is Mr. J. Gibbs, Jun., Temple Fortune Estate Office, Temple Fortune Mansions, Golders-green, N.W. The plans have been prepared by Mr. W. S. Dakers, 110, Jermyn-street, St. James's, S.W.1.

**Greenwich.**—CONVERSION.—The Greenwich B.C. have under consideration the conversion of Charlton House into a branch library and reading-rooms. Preliminary plans are being prepared by Mr. A. D. Sharp, L.R.I.B.A., 29, Courtfield-road, S.W.7.

**Grove-park.**—SCHOOL.—The tender of Messrs. J. W. Ellingham, Ltd., of Dartford, has been accepted by the L.C.C. for the erection of an elementary school. The tender price is £8,947.

**Gunnersbury.**—BUILDING.—Messrs. J. Smith and Co. (Motor Agents), Ltd., are erecting a new depot on the Great West-road. The building has been planned by Mr. H. W. Bannan, of 8, Philpot-lane, E.C.3. The general contractors are Messrs. A. and J. Main and Co., Ltd., of Australia House, Strand, W.C.2.

**Hammersmith.**—HALL.—The Ecclesiastical Commissioners are to purchase a site at Primula-street, Wormholt estate, for the erection of a mission hall and missioner's house.

**Islington.**—PREMISES.—A contract has been placed with Messrs. Commercial Structures, Ltd., of 61, City-road, E.C.1, for the erection of a block of workshops and garage premises at 76 and 78, White Lion-street, Chapel-street, Islington, N.1. The work is to be carried out under the directions of Mr. L. Manze.

**Lansdowne-crescent.**—ADDITIONS.—A contract has been placed and work started, with Messrs. Frost and Sheehan, of 116, Victoria-street, Westminster, S.W.1, for alterations and additions at 6, Lansdowne-crescent, Holland-park, W.11. The work will cost about £2,000, and the architects are Messrs. Coleridge, Jennings and Soimenow, 14, North Audley-street, W.1.

**Leadenhall-street.**—Tenders are now invited for the erection of the superstructure of the large new banking premises on the site of 140 and 144, for the Midland Bank, Ltd. The new buildings have been planned by Messrs. Whinney, Son and Austen Hall, 8, Old Jewry, E.C.2, in conjunction with Sir Edwin Lutyens, R.A., 17, Queen Anne's-gate, S.W.1. The steelwork contract has been let to Messrs. Rubery Owen and Co., of Imperial-buildings, 56, Kingsway, W.C.2.

**Leadenhall-street.**—REBUILDING.—A large block of premises are to be rebuilt as restaurant and business premises. The contract has been placed with Messrs. Ford and Walton, Ltd., 254, High-road, Kilburn, N.W.

**London.**—WAREHOUSE.—The Free Trade Wharf Co., Ltd., are to spend over £40,000 on the erection of a large warehouse at Broad-street, Ratcliffe, London, E.1. The plans have been prepared by Messrs. C. Dunch and Son, architects, of 27, Clement's-lane, E.C.4. Messrs. W. H. Lorden and Sons, Ltd., of 107, Trinity-road, S.W.17, are the general contractors.

**Maiden-lane.**—ALTERATIONS.—The contract for the carrying out of the alterations, etc., at the premises at No. 3 has been placed with Messrs. Ashby and Horner, Ltd., 8, Aldgate, E.1, at about £3,400. The plans have been prepared by Messrs. S. Clifford, Tee and Gale, architects, 50, Moorgate, E.C.2.

**Mason's-avenue.** — BUILDINGS. — Messrs. Selection Trust, Ltd., of Mason's-avenue, E.C.2, are to erect a large block of offices on the site of Nos. 4, 5, 6 and 7. The new buildings have been planned by Mr. Theophile Schaerer, of 11, Thurloe-square, South Kensington, S.W.7. The building contractors are Messrs. W. S. Barton and Co., 43, Chancery-lane, W.C.2.

**New Oxford-street.**—REBUILDING.—The contract for the rebuilding of the premises of Messrs. Alfred Imhoff, Ltd., as new shops, showrooms, and offices, has been placed with Messrs. Bovis (1928), Ltd., 43, Upper Berkeley-street, W.1, at £23,757, in lieu of previous tender. The steelwork will be carried out by the Aston Construction Co., Ltd., Eagle Wharf-road, Hoxton, N.1.

**Piccadilly.**—BANK.—The directors of the Royal Bank of Scotland have placed a contract with Messrs. Trollope and Colls, Ltd., of 5, Coleman-street, E.C.2, for the alterations and improvements at No. 16. The plans have been prepared by Messrs. Campbell Jones, Son and Smithers, 9, Dowgate-hill, Cannon-street, E.C.4.

**Portland-place.**—PREMISES.—The B.B.C. announces that as the result of negotiations approaching finality, the syndicate charged with the erection of the new headquarters in Portland-place are arranging with Messrs. Holland & Hannen and Cubitts, Ltd., Gray's Inn-road, W.C.1, for the preliminary work in connection with the excavation and foundations for the new building. The syndicate's architect is Lieutenant-Colonel G. Val Myer, who is working in close co-operation with Mr. M. T. Tudsbery, the civil engineer to the corporation.

**St. James's-square.** — BUILDINGS. — The L.C.C. have agreed to the erection of new buildings in St. James's-square and Pall Mall, S.W.1. The architects are Messrs. Tatchell and Wilson, FF.R.I.B.A., Bank-chambers, 32, Strand, W.C.2.

**Sloane-street.** — BANK. — Alterations and structural improvements are to be carried out to premises in order to form a new branch bank for the Westminster Bank, Ltd. The plans have been prepared by Messrs. Herbert Wigglesworth and Marshall Mackenzie, FF.R.I.B.A., 7, John-street, Bedford-row, W.C.1. The contract has been placed with Messrs. Hammond and Barr, Ltd., Sloane-avenue, Chelsea, S.W.3.

**Sloane-street.**—SHOPS.—A block of shops and flats is being erected on the site of No. 179. The new building has been planned by Messrs. Dudley Newman, Elliott and Wheeler, of 29, Bedford-row, W.C.1. The general contractors are Messrs. G. E. Wallis and Sons, Ltd., of Medway House, Old Cavendish-street, W.1. A contract for the steelwork has been placed with Messrs. Braithwaite and Co., Engineers, Ltd., of 54, Broadway, West-avenue, Chelsea, S.W.3.

**Regent-street.**—SHOWROOMS.—The Western Construction Co., Ltd., 47, Victoria-street, S.W.1, have now secured the contract for the superstructure for the new showrooms at 85, Regent-street and Glasshouse-street, W.1, for the Ford Motor Co., Ltd. Messrs. Chas. Heathcote & Sons are the architects.

**Tooting.**—PREMISES.—The contract for the erection of the new public-house—the Trafalgar—has been placed by Messrs. Hodgsons Kingston Brewery, Ltd., with Messrs. W. H. Gaze and Sons, Ltd., High-street, Kingston-on-Thames, at £10,083. The plans have been prepared by Messrs. Yetts, Sturdy and Usher, FF.R.I.B.A., 34, Gordon-square, Bloomsbury, W.C.1. The quantity surveyors are Messrs. Riley and Fidgen, 82, Victoria-street, Westminster, S.W.1.

**Upper Tooting.**—SCHOOL.—St. Peter's Presbyterian Church have decided to erect a new school and church hall adjoining their church in Beechcroft-road, S.W.17, at a cost of about £7,000. Accommodation will be provided for about 400 children, the buildings including a large central hall, with classrooms, etc. The contract has been placed with Messrs. Speirs, Ltd., of Glasgow.

# NEW CINEMAS

**Edmonton.**—It is proposed to dispose, on a building lease of 99 years, of the large site at the corner of Fore-street, N., having an area of about 20,000 square ft., for the erection of a new cinema. The matter is in the hands of Messrs. Drivers & Norris, surveyors, 407, Holloway-road, N.7.

**Edinburgh.**—The building contract for the "New Victoria" super cinema, to be erected at the corner of Clerk-street and Buccleuch-street for the Provincial Cinematograph Theatres, Ltd., of 133, Regent-street, W., has been gained by Messrs. McLaughlin & Harvey, Ltd., 25, Highbury-grove, N.5. The architects are Mr. W. E. Trent, F.S.I., staff architect to the P.C.T., and Mr. J. Jerdan, F.R.I.B.A., of 12, Castle-street, Edinburgh.

**Greenock.**—Messrs. R. Kirkwood, of Greenock, have received the contract for alterations to the "Picture House" for Scottish Variety Theatres and Cinemas, Ltd. The architects are Messrs. Gardner & Glen, 164, Bath-street, Glasgow.

**Hornsey.**—The Town Council has passed plans for alterations and additions to the Summerland Cinema, Summerland Gardens, N. The proprietor is Mr. Arthur Ferris, "Athenæum" Picture Playhouse, Fortis Green-road, N.

**Longton.**—Stoke-on-Trent Corporation has approved plans of alterations at the City Cinema, Market-street, Longton.

**Manchester.**—The Corporation Town Planning Committee has consented to the erection of a cinema and shops at Parrs Wood-road South and School-lane, Didsbury. The architect is Mr. Peter Cummings, A.R.I.B.A., 51, King-street, Manchester.

**Southborough.**—The High Brooms Brick and Tile Company have had plans submitted to the local council for a cinema at High Brooms.

**Torquay.**—The plans for the new super-cinema to be erected at Castle-circus, Torquay, were submitted to the Torquay magistrates for their approval by the solicitors of the Burlington Picture House, Torquay, Ltd. The plans have been prepared by Messrs. Bridgeman & Bridgeman, Fleet-street, Torquay, and Mr. Robert Atkinson, F.R.I.B.A., Bedford-square, W.C.2. Plans were informally approved. The contract, as announced in our issue for March 29, has been obtained by Messrs. R. Yeo & Sons, of Torquay.

# RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.]

| | Masons. | Brick-layers. | Carpenters Joiners. | Plasterers. | Slaters. | Plumbers. | Painters. | Labourers. |
|---|---|---|---|---|---|---|---|---|
| Aberdare | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Accrington | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Aldershot | 1/4 | 1/4 | 1/4 | 1/4 | 1/7½ | 1/4 | 1/4 | 1/0 |
| Alfreton | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/4 | 1/7½ | 1/6 | 1/1½ |
| Alnwick | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/7½ | 1/6½ | 1/6 | 1/2½ |
| Altrincham | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/4 | 1/7½ | 1/7½ | 1/0½ |
| Ashford Kent | 1/4 | 1/4 | 1/4 | 1/4 | 1/6½ | 1/6½ | 1/6½ | 1/3½ |
| Ashington | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/7½ | 1/7½ | 1/7½ | 1/1½ |
| Ashton-under-Lyne | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/4 | 1/4 | 1/4 | 1/2½ |
| Aylesbury | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0½ |
| Aylsham | 1/4 | 1/4 | 1/4½ | 1/4½ | 1/7½ | 1/7½ | 1/4½ | 1/2½ |
| Banbury | 1/4½ | 1/4½ | 1/7½ | 1/7½ | 1/5 | 1/5 | 1/7½ | 1/0½ |
| Barnsley | 1/7½ | 1/7½ | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Barnstaple | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Barrow-in-Furness | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Barry | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/4½ | 1/4½ | 1/5½ | 1/0½ |
| Basingstoke | 1/4½ | 1/4½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Bath | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/1½ |
| Bedford | 1/5½ | 1/5½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Berwick | 1/6½ | 1/6½ | 1/4½ | 1/4½ | 1/4½ | 1/6½ | 1/4½ | 1/0½ |
| Bexhill | 1/4½ | 1/4½ | 1/10 | 1/10 | 1/9 | 1/9 | 1/9 | 1/3½ |
| Birkenhead | 1/9 | 1/9 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Birmingham | 1/7½ | 1/7½ | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Bishop Auckland | 1/7 | 1/7 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Blackburn | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Blackpool | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/1½ |
| Bolton | 1/7½ | 1/7½ | 1/5½ | 1/5½ | 1/7½ | 1/7½ | 1/5½ | 1/2½ |
| Bournemouth | 1/5½ | 1/5½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/0 |
| Bradford | 1/7½ | 1/7½ | 1/4 | 1/4 | 1/4 | 1/5 | 1/5 | 1/0½ |
| Bradford-on-Avon | 1/4 | 1/4 | 1/5 | 1/5 | 1/5 | 1/6½ | 1/6½ | 1/2 |
| Braintree | 1/5 | 1/5 | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/4½ | 1/0½ |
| Brentwood | 1/6½ | 1/6½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Bridgwater | 1/4½ | 1/4½ | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/1½ |
| Bridlington | 1/7 | 1/7 | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/2½ |
| Brighton | 1/5½ | 1/5½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2 |
| Bristol | 1/7½ | 1/7½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/1½ |
| Bromsgrove | 1/6½ | 1/6½ | 1/0½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/1½ |
| Bromyard | 1/3½ | 1/3½ | 1/3½ | 1/3 | 1/3 | 1/3 | 1/3 | 1/2½ |
| Bungay | 1/3 | 1/3 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Burnley | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Burton-on-Trent | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Bury | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/1½ |
| Buxton | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/0½ |
| Cambridge | 1/4½ | 1/4½ | 1/7½ | 1/7½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Canterbury | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Cardiff | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/0½ |
| Carlisle | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/0½ |
| Chatham | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/1½ |
| Chelmsford | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Cheltenham | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/6 | 1/7½ | 1/7½ | 1/2½ |
| Chester | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Chesterfield | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Chorley | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Cirencester | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/1½ |
| Clacton | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/7½ | 1/5½ | 1/7½ | 1/2½ |
| Colchester | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Coventry | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/1½ |
| Cranbrook | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/0 |
| Crewe | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2½ |
| Cromer | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/0½ |
| Darlington | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/1½ |
| Deal | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Denbigh | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Derby | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Devizes | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/0½ |
| Dewsbury | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Doncaster | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0½ |
| Dorchester | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/1½ |
| Dorking | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/1½ |
| Dovercourt | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Driffield | 1/6 | 1/6 | 1/6 | 1/7 | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Droitwich | 1/7 | 1/7 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/1½ |
| Dudley | 1/7½ | 1/7½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/2½ |
| Durham | 1/5½ | 1/5½ | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/0 |
| Eastbourne | 1/7 | 1/7 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2 |
| E. Glam. (Mon.Val.) | 1/4 | 1/4 | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/0½ |
| Ely | 1/6½ | 1/6½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0 |
| Exeter | 1/4½ | 1/4½ | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/1½ |
| Exmouth | 1/4 | 1/4 | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/0½ |
| Fakenham | 1/5½ | 1/5½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Felixstowe | 1/4½ | 1/4½ | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/1½ |
| Folkestone | 1/4 | 1/4 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Frome | 1/7½ | 1/7½ | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/0½ |
| Glossop | 1/6 | 1/6 | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Gloucester | 1/4½ | 1/4½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Godalming | 1/6½ | 1/6½ | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/0½ |
| Goole | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Gosport | 1/6 | 1/6 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/2½ |
| Grantham | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Great Yarmouth | 1/7½ | 1/7½ | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/2½ |
| Grimsby | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Guildford | 1/7½ | 1/7½ | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/2½ |
| Halifax | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Harpenden | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/5 | 1/7½ | 1/7½ | 1/0½ |
| Harrogate | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/5 | 1/5 | 1/1½ |
| Hartlepools | 1/5 | 1/5 | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/2 |
| Harwich | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/1½ |
| Hastings | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/0 |
| Hatfield | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/0½ |
| Hednesford | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/0½ |
| Hereford | 1/4 | 1/4 | 1/5 | 1/5 | 1/4 | 1/4 | 1/4 | 1/0½ |
| Herne Bay | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/1½ |
| Hertford | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/1½ |
| Hitchin | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/1½ |
| Hoddesdon | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/1½ |
| Holt | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Huddersfield | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Hull | 1/4 | 1/4 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Hunstanton | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4 | 1/4 | 1/4 | 1/2½ |
| Huntingdon | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/1½ |
| Isle of Wight | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/2½ |
| Ipswich | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Keighley | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Kettering | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Kidderminster | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| King's Lynn | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Lancaster | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Leamington Spa | | | | | | | | |
| Leeds | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Leicester | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Leighton-Buzzard | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/0 |
| Lichfield | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Lincoln | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Littlehampton | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/0½ |
| Liverpool | 1/9 | 1/9 | 1/9 | 1/10 | 1/10 | 1/9 | 1/9 | 1/3½ |
| Llandudno | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Llanelly | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| London: | | | | | | | | |
| 12 m. radius | 1/9 | 1/9 | 1/9 | 1/9* | 1/9 | 1/9 | 1/8 | 1/4 |
| 12-15 m. radius | 1/8½ | 1/8½ | 1/8½ | 1/8½* | 1/8½ | 1/8½ | 1/7½ | 1/3½ |
| Loughborough | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Lowestoft | 1/5 | 1/5 | 1/5 | 1/5 | 1/6 | 1/5 | 1/5 | 1/0½ |
| Luton | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Macclesfield | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Maidstone | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/1½ |
| Malvern | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Manchester | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Mansfield | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Margate | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/1½ |
| Market Harb'rough | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/1½ |
| Matlock | 1/6 | 1/6 | 1/6 | 1/3 | 1/3 | 1/6 | 1/3 | 1/1½ |
| Melton Constable | 1/3 | 1/3 | 1/3 | 1/6½ | 1/6½ | 1/3 | 1/3 | 1/2 |
| Melton Mowbray | 1/6½ | 1/6½ | 1/6½ | 1/7 | 1/7 | 1/6½ | 1/6½ | 1/2½ |
| Merthyr Tydfil | 1/7 | 1/7 | 1/7½ | 1/7½ | 1/7½ | 1/7 | 1/7 | 1/2½ |
| Middlesbrough | 1/7½ | 1/7½ | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/0½ |
| Newark | 1/6 | 1/6 | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Newbury | 1/4½ | 1/4½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Newcastle-on-Tyne | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Newcastle-ur-Lyme | 1/7½ | 1/7½ | 1/7½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| New Forest | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Newmarket | 1/4½ | 1/4½ | 1/4½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Newport, Mon. | 1/7½ | 1/7½ | 1/7½ | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Northampton | 1/7 | 1/7 | 1/7 | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Norwich | 1/6½ | 1/6½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Nottingham | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Nuneaton | 1/7½ | 1/7½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/2½ |
| Oakham | 1/5½ | 1/5½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Oldham | 1/7½ | 1/7½ | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2 |
| Oxford | 1/6 | 1/6 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 11½ |
| Paignton | 1/7 | 1/7 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Peterborough | 1/6 | 1/6 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Plymouth | 1/7½ | 1/7½ | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Pontypridd | 1/7 | 1/7 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Portsmouth | 1/6 | 1/6 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Preston | 1/7½ | 1/7½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Ramsgate | 1/4½ | 1/4½ | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Reading | 1/6 | 1/6 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Redcar | 1/7½ | 1/7½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Redditch | 1/6½ | 1/6½ | 1/5½ | 1/5½ | 1/6 | 1/5½ | 1/5½ | 1/2½ |
| Reigate | 1/5½ | 1/5½ | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Retford | 1/6 | 1/6 | 1/6 | 1/6 | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Ripon | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/5 | 1/7½ | 1/5 | 1/2½ |
| Rochdale | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Rochester | 1/7½ | 1/7½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/2½ |
| Rugby | 1/3½ | 1/3½ | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Saffron Walden | 1/6 | 1/6 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| St. Albans | 1/7½ | 1/7½ | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/2½ |
| St. Helens | 1/5 | 1/5 | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/2½ |
| Sawbridgeworth | 1/3½ | 1/3½ | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Saxmundham | 1/7 | 1/7 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/2½ |
| Scarborough | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Sevenoaks | 1/7½ | 1/7½ | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Sheffield | 1/6 | 1/6 | 1/4 | 1/4 | 1/6 | 1/4 | 1/4 | 1/2½ |
| Shrewsbury | 1/4 | 1/4 | 1/6 | 1/6 | 1/6½ | 1/6 | 1/6½ | 1/2½ |
| Sittingbourne | 1/6 | 1/6 | 1/6½ | 1/6½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Southampton | 1/6½ | 1/6½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Southend-on-Sea | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/5 | 1/7½ | 1/7½ | 1/2½ |
| Southport | 1/7½ | 1/7½ | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/5 | 1/2½ |
| South Shields | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Stevenage | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Stockport | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Stockton-on-Tees | 1/7½ | 1/7½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Stoke-on-Trent | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Stourbridge | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Stourport | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Stowmarket | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2 |
| Stratford-on-Avon | 1/6 | 1/6 | 1/6 | 1/5 | 1/6 | 1/6 | 1/5 | 1/2½ |
| Stroud | 1/5 | 1/5 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Sunderland | 1/7½ | 1/7½ | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/2½ |
| Swaffham | 1/3 | 1/3 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Swansea | 1/7½ | 1/7½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/5½ | 1/2½ |
| Swindon | 1/5½ | 1/5½ | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Tamworth | 1/7 | 1/7 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/2½ |
| Taunton | 1/5 | 1/5 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2½ |
| Thetford | 1/4 | 1/4 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Torquay | 1/7½ | 1/7½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Totnes | 1/4½ | 1/4½ | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2½ |
| Trowbridge | 1/4 | 1/4 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/2½ |
| Tunbridge Wells | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/5 | 1/2½ |
| Uttoxeter | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Wakefield | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Walsall | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Wallsend | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2½ |
| Warminster | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Warrington | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Warwick | 1/3 | 1/3 | 1/3 | 1/6 | 1/8 | 1/3 | 1/6 | 1/2½ |
| Wells (Norfolk) | 1/6 | 1/6 | 1/6 | 1/7½ | 1/7½ | 1/6 | 1/7½ | 1/2½ |
| Welwyn Gar. City | 1/7½ | 1/7½ | 1/7½ | 1/5½ | 1/5½ | 1/7½ | 1/5½ | 1/2½ |
| West Bromwich | 1/5½ | 1/5½ | 1/5½ | 1/4½ | 1/4½ | 1/5½ | 1/4½ | 1/2½ |
| Weston-sup.-Mare | 1/4½ | 1/4½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/6½ | 1/2½ |
| Weymouth | 1/6½ | 1/6½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Whitby | 1/7½ | 1/7½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Wigan | 1/4½ | 1/4½ | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Winchester | 1/6 | 1/6 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2½ |
| Windsor | 1/6 | 1/6 | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Wisbech | 1/7½ | 1/7½ | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2½ |
| Wolverhampton | 1/4 | 1/4 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Woodbridge | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/2½ |
| Worcester | 1/6 | 1/6 | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/4½ | 1/2½ |
| Worksop | 1/4½ | 1/4½ | 1/7 | 1/7 | 1/7 | 1/7 | 1/7 | 1/2½ |
| Worthing | 1/7 | 1/7 | 1/3 | 1/3 | 1/3 | 1/3 | 1/3 | 1/2½ |
| Wrexham | 1/3 | 1/3 | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/3½ | 1/2½ |
| Wroxham | 1/3½ | 1/3½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Wymondham | 1/7½ | 1/7½ | | | | | | |
| York | | | | | | | | |

* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 1101.

# CONTRACTS, COMPETITIONS, &c.

**For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.**

***The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.***

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

## BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

### JUNE 17.

**Aylsham.**—Cottages.—Three pairs at Reepham, for R.D.C. H. J. Gidney, clerk.

**Bangor.**—Painting.—Guildhall, for First Presbyterian Church. W. H. Keenan, Congregational Secretary, 7, Parkmount, Bangor, County Down.

**Bradford.**—Premises.—Pulling-down and erection of warehouse on adjoining site at Thornton-rd., for T.C. City E. and S.

**Cardiff.**—Improvements.—Also extension of casual wards at City Lodge Institution, for B.G. Willmott & Smith, joint architects, 27, Park-pl. Dep. £2 2s.

**Cardiff.**—Renovations.—(1) Homes in Cardiff; (2) homes in Penarth and Barry, for B.G. R. Stephenson, clerk, 11, Park-pl.

**Carlton.**—Houses.—Eight, on Forester-st. site, for T.C. J. A. West, A.R.I.B.A., S., Manor-rd. Dep. £1 1s.

**Chester.**—Painting.—External, Grosvenor Museum, for B.C. City S.

**Ealing.**—Caretaker's Cottage and Front Boundary Wall.—At Northolt School, for the Ealing B.C. W. R. Hicks, Borough Engineer, Town Hall, Ealing, W.5.

**Ealing.**—Painting.—8 various schools, for T.C. W. R. Hicks, B.E.

**Edinburgh.**—Installation.—Electric at Colinton, Davidson's Mains, Gilmerton, Granton, Juniper-green, Willowbrae, and Milton House schools, for B.C. W. F. Mitchell, consulting engineer, 34, St. Andrew-sq.

**Egham.**—Additions.—To administrative buildings at Isolation Hospital, Englefield-green, for U.D.C. A. P. Sturt, Building Surveyor.

**Glasgow.**—Installation.—For electric lighting at (1) Allan-st., and (2) Braidfaulds-st., No. 2 housing schemes, for T.C. General Manager, 75, Waterloo-st., Glasgow, C.2.

**Glasgow.**—Painting.—Schools, for E.C. J. Clark, Director of Education. Dep. 10s. 6d.

**Glasgow.**—Heating.—At Quarry Brae school, Crail-st., Parkhead, for E.C. J. Clark, Director of Education. Dep. £1 1s.

**Ilford.**—Painting.—Also renovating Chadwell, Goodmayes and Loxford schools, for T.C. H. Shaw, M.Inst.C.E., Architect to E.C. Dep. £1 1s.

**Leeds.**—Painting.—(a) Painting and cleaning of schools, and (b) electric lighting of schools, for E.C. Education Offices (Architect's Section), Calverley-st.

**Liverpool.**—School.—Elementary school at Shell-rd., for T.C. Briggs & Thornely, architects, Royal Liver-buildings, Pier Head. Dep. £4 4s.

**Liverpool.**—School.—Infants' school, Wellington-rd., for T.C. Land Steward and Surveyor. Dep. £2 2s.

**Liverpool.**—Conversion.—Of "Sandheys," West Derby, into preparatory school, for T.C. Land Steward and Surveyor. Dep. £2 2s.

**Liverpool.** — Building. — Open-air classrooms, Monksdown-rd. school, Norris Green, for T.C. Land Steward and Surveyor. Dep. £1 1s.

**London.**—Painting.—At Central library, Fulham-rd., and at Fulham baths, for Fulham B.C. B.E. and S.

**Rowley Regis.**—Repairs.—Repairing and resurfacing playground of Doulton-rd. Boys' Council school for E.C. Education Offices, Lawrence-lane, Old Hill.

**Solihull.**—Dwellings.—14 non-parlour at Tythe Barn-lane, Shirley, for R.D.C. J. A. Perry & Wilson, architects, County-buildings, 147, Corporation-st., Birmingham. Dep. £1 1s.

**Stainland.**—Painting.—Outside, 31 houses at West View and Glen Royd, for U.D.C. H. E. Moses, S.

**Strachan.**—Repairs.—To manse, for Church of Scotland—Presbytery of Kincardine O'Neil. G. Rennet Mitchell, architect, 1, West Craibstone-st., Aberdeen.

**Strichen.**—Additions.—Also alterations, to Town Hall, for P.C. R. J. Cassie.

**Swansea.**—Furniture and Fittings, etc.—Required for the Municipal Secondary Schools, Dynevor-place, and De la Beche-street, by the Swansea B.C. Ernest E. Morgan, A.R.I.B.A., Borough Architect, 3, Prospect-place, Swansea. Dep. £2 2s.

**West Ham.**—Electric Light and Hot Water.—Installing electric light at Fyfield Open-air School extension, near Ongar. Installing hot water heating apparatus at Balaam-st. School, Plaistow, for the West Ham E.C. John H. Jacques, F.R.I.B.A., architect, 61, West Ham-lane, Stratford, E.15. Each application for heating or lighting must be accompanied by a deposit of £1.

**York.**—Flats.—16 in Tuke-av., Tang Hall-lane, for T.C. F. W. Spurr, City E. Dep. £2 2s.

### JUNE 18.

**Argoed.**—Premises.—Building new club premises. Secretary.

**Bootle.**—Painting.—Cleaning and painting work at interiors of (1) Infectious Diseases Hospital, Linacre-lane, and (2) Maternity Home, Balliol-rd., for C.B. B.E.

***Brighton.**—Removal of Cooking Ranges.—And preparing opening to receive gas cookers, etc., at the Poor Law Institution, Brighton, for the Brighton Parish Guardians. E. Wallis Long, architect, 6, Old Steine, Brighton.

**Clitheroe.**—Houses.—Nine, on Brownlow-st. housing site, for Corporation. A. R. Bleazard, B.E. Dep. £1 1s.

**Gravesend.**—Repairs and Materials.—War Dept. contract. Term contract from July 6, 1929, in the following Royal Engineer District of the Eastern Command. Gravesend. Commander R.Engrs., C.R.E.'s Office, Inner Lines, Chatham.

**Gretton.**—Cottages.—Eight cottages, for R.D.C. S., North-st., Uppingham. Dep. £1 1s.

**Hendon.**—Repairs and Decorations.—At the schools, for the Hendon E.C. A. O. Knight, Engr. to the Council, Town Hall, Hendon, N.W.4. Dep. £1 1s.

**London.**—Internal Painting.—At the Telephone Exchange, Wood-st., E.C., for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**Londonderry.**—Installation.—Electric light at Criminal Lunatic Asylum, for Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-sq. West, Belfast.

**Oldham.**—House.—At Slacks Valley Outfall Works, Foxdenton-lane, Chadderton, for C.B. J. Ashurst, B.E. and S. Dep. £1 1s.

**Rochdale.**—Painting.—Workman's Club, Brick-croft-st. Steward.

**Rochdale.**—Pavilion.—Tennis pavilion at Cronkeyshaw, for C.B. B.S.

**Sheffield.**—Houses.—90 non-parlour type, on Wisewood estate, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

**Walthamstow.**—Painting, Distempering, etc.—Sundry works of interior and exterior renovation in painting, distempering, etc., of various schools (during the summer vacation), for the Walthamstow E.C. H. Prosser, F.R.I.B.A., Education Committee Offices, 263, High Street, Walthamstow, E.17.

### JUNE 19.

**Bury.**—Painting.—At following recreation grounds, for Corporation: (1) Manchester-rd. ground; (2) Walmersley-rd. ground; (3) Rochdale-rd. ground; (4) Elton recreation ground; (5) Kay-gardens. B.E.

**Dublin.**—Reconstruction.—Of lantern lights, etc., at City Hall and Municipal buildings, for Corporation. City Architect, Exchange-buildings, Lord Edward-st.

**Dun Laoghaire.**—Roof.—Removal of portion of roof over local platform at Dun Laoghaire station, for Great Southern Railways. Chief Engineer, Broadstone Station, Dublin, C.16.

**Edinburgh.**—Workshops.—At Calton-rd., for Gas Dept. Engineer and Manager, 15, Calton-hill.

**Fermanagh.**—School.—Public elementary school at Derryhillagh, for Regional E.C. J. J. Maguire, secretary, Courthouse, Enniskillen.

**Grangegorman.**—Wings.—Two small wings for consumptives at Mental Hospital, for Committee. P. J. Munden, F.R.I.B.A., 28, South Frederick-st., Dublin. Dep. £3 3s.

**Hull.**—Fencing.—Wood fencing at Flinton-grove school site, and also for access from Anlaby Park-rd. to Pickering-rd. school site, for E.C. R. C. Moore, Director of Education.

**Liverpool.**—Houses.—30, Hopwood-st., for T.C. Acting Director of Housing. Dep. £1 1s.

**Liverpool.**—Railings.—462 & lin. yds. wrought iron railings, 6 ft. 6 in. high, with pair of ornamental wrought iron gates, for T.C. City E.

**London.**—Painting and Repairing Works.—At the Administrative Offices, 53, Clerkenwell-rd., E.C.1, for the Guardians of the Holborn Union. Chas. J. Cross, clerk, Administrative Offices, 53, Clerkenwell-rd., E.C.1. Dep. £1 1s.

**Mytholmroyd.**—Houses.—8, on Caldine estate, for U.D.C. T. Feather, S. Dep. £2.

**Newbury.**—Post Office and Telephone Exchange.—Extension of, at Newbury, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**Salford.**—Painting.—Painting at schools; (b) asphalting and flagging playgrounds, for T.C. T. C. Evans, T.C.

**Sheffield.**—Extensions.—At Lodge Moor Hospital, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

### JUNE 20.

***Bermondsey.**—Repairs and Redecoration.—Of the exterior of the Ladywell Institution, Ladywell-rd., S.E.13, for the Guardians of the Parish of Bermondsey. Henry H. Reeve, Clerk, Guardians' Offices, 283, Tooley-st., London, S.E.1. Dep. £5 Bank of England note.

***Bermondsey.**—Repairs and Redecoration.—Of the interior of the Guardians' Offices, 283, Tooley-st., S.E.1, for the Bermondsey Board of Guardians. Henry H. Reeve, Clerk, Guardians' Offices, 283, Tooley-st., London, S.E.1. Dep. £5 Bank of England note.

**Bristol.**—Building.—4 transformer sub-stations, for T.C. H. Faraday Proctor, Chief Engineer and General Manager, Electricity Offices, Colston-av. Dep. £2 2s.

**Eastern Command.**—Repairs and Materials.—War Department Contract, from July 3, 1929, in the following Royal Engineer District of the Eastern Command:—Landguard, Harwich and Felixstowe. Commander, Royal Engineers, 4th Division and East Anglian Area, Flagstaff-rd., Colchester.

**Exmouth.**—Extensions.—Also alterations to existing hospital buildings, for Hospital Committee. J. C. Beare, A.R.I.B.A., 42, Devon-sq., Newton Abbot.

***Islington.**—Plastering Three Wards, etc.—At the Infirmary, Highgate-hill, N.19, for the Guardians of the Parish of St. Mary, Islington. Vine & Vine, AA.R.I.B.A., Tudor-chambers, Station-road, Wood Green, N.22. Dep. £2.

***Islington.**—Heating, etc.—Installation of a new calorifier and alteration to circulation mains at the Infirmary (C. Block), Highgate-hill, N.19, for the Guardians of the Parish of St. Mary, Islington. Vine & Vine, AA.R.I.B.A., Tudor-chambers, Station-road, Wood Green, N.22. Dep. £2.

***Islington.**—External Repairs and Painting.—At the Infirmary, Highgate-hill, N.19, for the Guardians of the Parish of St. Mary, Islington: Vine & Vine, AA.R.I.B.A., Tudor-chambers, Station-road, Wood Green, N.22. Dep. £2.

***Islington.**—Repairs and Decorations.—External and internal, at the Relief Offices, Officers' Apartments, etc., Barnsbury-street, Liverpool-road, N., for the Guardians of the Parish of St. Mary, Islington. Vine & Vine, AA.R.I.B.A., Tudor-chambers, Station-road, Wood Green, N.22. Dep. £2.

***Islington.**—Demolition and Building Work.—Pulling down existing buildings and erecting new garage, etc., at the Institution, St. John's-road, N.19, for the Guardians of the Parish of St. Mary, Islington. Vine & Vine, AA.R.I.B.A., Tudor-chambers, Station-road, Wood Green, N.22. Dep. £2.

**Kingston-upon-Hull.**—Foundations.—Underpinning of foundations, and concrete foundations for bridge and retaining wall, for T.C. J. N. Waite, City Electrical Engineer, Electricity Works, Sculcoates-lane. Dep. £2 2s.

**Manchester.**—Clinic.—Erection, Openshaw school clinic, for E.C. Education Offices, Deansgate. Dep. £2 2s.

**Manchester.** — School. — Erection, Openshaw Technical school, for E.C. F. E. Warbreck Howell, T.C. Dep. £2 2s.

**Manchester.**—Additions.—To Varna-st. Municipal school (infants' department), for E.C. F. E. Warbreck Howell, T.C. Dep. £1 1s.

**Monaghan.**—Houses.—4, for Irish Sailors' and Soldiers' Land Trust. W. J. Brown, F.R.I.B.A., architect, 50-51, Upper Mount-st. Dublin. Dep. £5 5s.

**Peterborough.**—Houses.—9, in new road, Woodston, for T.C. City E., 6, Long Causeway. Dep. £2 2s.

**Retford.**—Heating.—Low pressure hot water heating, hot water and fire services, at State Institution, Rampton, for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

**St. Helens.**—Various Works.—Contract No. 1, conversion of "The Hollies," Cowley Hill-lane, St. Helens, into two houses; contract No. 2, conversion of "Balker" into administrative block, together with a building of a new maternity hospital block, for the St. Helens B.C. Biram & Fletcher, FF.R.I.B.A., 17, George-st., St. Helens.

**Sheffield.**—Plumbing.—For domestic hot water supply at Woodhouse Secondary school, for West Riding E.C. Education Officer, County Hall, Wakefield.

**Shoreham-by-Sea.**—Repairs.—(a) External painting of 56 houses, Gordon-rd. area, Shoreham-by-Sea; (b) small internal repairs 20 houses, Kingston-crescent, Brighton-rd., for U.D.C. J. Dunn, E. and S.

***Sittingbourne.**—Houses.—Erection of 60 non-parlour type, for the Sittingbourne U.D.C. M. W. Lashmar, Surveyor, Town Hall, Sittingbourne. Dep. £2.

### JUNE 21.

**Bedford.**—Cottages.—8 non-parlour at Willington, near Bedford, for R.D.C. F. R. Chapman, S. Dep. £2 2s.

**Bootle.**—Secondary School.—Erection of, on a site in Breeze Hill, for the Bootle E.C. Samuel Clarke, Secretary for Education, Town Hall, Bootle. Dep. £2 2s. Cheques payable to the Treasurer.

**Doncaster.**—Houses.—24 on site adjoining Briar-rd., Armthorpe, for R.D.C. W. R. Crabtree, S.

**Doncaster.**—Houses.—12, at Council estate, Rossington, for R.D.C. W. R. Crabtree, S., Nether Hall.

**Dublin.**—Painting.—Painting, lime and colour washing at buildings in Phœnix-park, for the Commissioner of Public Works. T. Cassedy, secretary, Office of Public Works.

**Hull.**—Painting.—Interior of Guildhall, for T.C. D. Harvey, A.R.I.B.A., City Architect.

**Manchester.**—Building.—Taking down and re-erecting frontages to 78 and 80, Shudehill, for T.C. City Architect. Dep. £1 1s.

**Meath.**—House.—Dwelling-house and out-office on lands adjacent to Gibbstown Railway Station, Co. Meath, for Irish Land Commission. J. T. Drennan, secretary, Irish Land Commission, Upper Merrion-street, Dublin. Dep. £1.

**Nottingham.**—Shops.—6, with houses attached, on Bulwell Hall housing estate, for T.C. T. Cecil Howitt, architect, 58-59, Long-row. Dep. £1.

**Salford.**—School.—Erection of Tootal Drive Public, etc., schools, for Salford City Council.

The Secretary for Education, Education Office, Salford. Dep. £1 1s.

**Stockport.**—New Sunday School.—Erection of at the Trinity Wesleyan Church, Stockport, for the Trustees. Wm. A. Banks, F.R.I.B.A., 76, Wellington-road South, Stockport. Dep. £2.

**Wilts.**—Cottages.—Police cottage at Alderbury, Barford St. Martin, Great Somerford, Keevil and West Overton, for C.C. T. Walker, F.R.I.B.A., County Architect, County Architect's Department, Trowbridge. Dep. £1 1s.

**JUNE 22.**

**Athlone.**—Church.—For Rev. Father Philip Jones & Kelly, architects, 17, South Frederick-st., Dublin. Dep. £10 10s.

**Bromley, Kent.**—Houses.—Erection of 63 in blocks of four, three and pairs, on the Housing Estate at Southborough, for the Bromley T.C. Fred H. Norman, T.C., Municipal Offices, Bromley, Kent. Dep. £2 2s.

**Edinburgh.**—Lighting.—Installation of electric lighting in Dr. Guthrie's Girls' School, Gilmerton. R. Sinclair, secretary, 22, Hill-st. Dep. £1.

**Kerry.**—School.—Single-story school at Tralee, Co. Kerry. D. M. O'Connor, A.R.I.B.A., architect, 29, South Mall, Cork. Dep. £5 5s.

**Kirkcaldy.**—Houses.—24, at Lochore, for D.C G. B. Deas, architect, Central-cham., Kirkcaldy.

**Loughborough.**—School.—Erection of Limehurst Senior Council school, for the Loughborough E.C Frank Tranmer, A.R.I.B.A., architect, Westminster-chambers, Station-parade, Harrogate. Dep. £2 2s.

**Norwich.**—New Offices.—Timber construction, for the Norwich City Council. J. S. Bullough, C.E., Guildhall, Norwich. Dep. £1.

**Oakham.**—Hut.—Army hut at Workhouse, for use as a casual ward, for B.G. A. G. Kilner, S., Market-place. Dep. £1 1s.

**Pontypridd.**—Painting.—Also colouring schools, for E.C. S. Dep. £2 2s.

**Sawley.**—Alterations.—For Trustees of Sawley Wesleyan Chapel. J. Higson, Clover Cottage.

**Southampton.**—School.—Erection of a new Council school at Worthing, near Basingstoke, for the Southampton C.C. A. L. Roberts, F.R.I.B.A., County Architect, The Castle, Winchester. Dep. £1 1s., by cheque, payable to the Hampshire C.C.

**Staffordshire.**—Walls.—Demolition of Brereton Canal bridge, construction of mass concrete retaining walls and widening of roadway adjacent to Bridge Side. R. S. Murt, C.S., County Buildings, Stafford.

**Uxbridge.**—Decorations.—Interior and repair of 47 houses in George-st., Montague-rd., Chippendale Waye and Hillingdon-rd., for U.D.C. William L. Eves, F.R.I.B.A., 54, High-st

**JUNE 24.**

**Beckenham.**—Reconstruction.—Also extension of existing destructor at Electric Generating Station, Churchfields-rd., for U.D.C. H. Storr Best, S. Dep. £5.

**Beddington and Wallington.**—Fencing.—Wrought iron fencing at St. Mary's Field, Warrington, for U.D.C. S. F. R. Carter, E. and S. Dep. £1 1s.

**Camberwell.**—External Painting and Decorating Work.—To the estate at East Dulwich, for the Camberwell B.C. William Bell, B.E. and S., Town Hall, Camberwell, S.E.5.

**Eccles**—Painting—Interior of Assembly Hall, Town Hall, for T.C. B.E. and S.

**Hull.**—Painting.—Interior, at Maternity Home and Infants' Hospital, Hedon-rd., for T.C. D. Harvey, A.R.I.B.A., City Architect.

**Ilford.**—Public Baths.—Erection and completion of public baths in the High-rd., for the Ilford Corporation. H. Shaw, Borough Engineer, Town Hall, Ilford. Dep. £5 5s.

**Ilford.**—Painting.—Exterior of 60 houses on the Ley-st. housing estate, for the Ilford B.C. H. Shaw, B.E. and S., Town Hall, Ilford. Dep. £1 1s.

**Rowley Regis.**—Demolition.—Buildings at junction of Station-st. with Cradley-rd., Cradley Heath, for U.D.C. D. Wright, clerk.

**Southampton.**—Fencing.—460 yds. run of dwarf iron fencing, for C.B. B.E. Dep. 10s. 6d.

**Worthing.**—Extensions.—To Worthing High School for Girls, Southfarm-rd., for West Sussex C.C. Haydn P. Roberts, F.R.I.B.A., County Architect, "Fernleigh," North-street, Chichester. Dep. £2 2s.

**JUNE 25.**

**Bilston.**—Building.—Practical instruction rooms in Bridge-st., for E.C. Joynson Bros., F.R.I.B.A., architects, Butcroft, Darlaston. Dep. £2 2s.

**Dublin.**—Pavilion.—Tennis pavilion and football dressing shed, Croydon-park and Marino-park, for C.B. City Architect. Dep. £1 1s.

**Kingsclere.**—Sheds.—Kingsclere, 6 sheds; Haughurst-hill, 8; Ashford-hill, 4; Hannington, 4; for R.D.C. W. A. Cooper, clerk.

***Southall.**—Houses.—Erection of 161 on the Brickfield site, for the Southall-Norwood U.D.C. J. B. Thomson, Housing Architect, Town Hall, Southall. Dep. £2 2s.

**Surrey.**—Extensions, etc.—To the Golf Club House, Richmond Park, for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

**Wath.**—Installation.—Heating, at Secondary school, for West Riding E.C. Education Officer, County Hall, Wakefield.

**JUNE 26.**

**Altrincham.**—Extension.—Public offices, Market-st., for U.D.C. F. H. Brazier, A.R.I.B.A., 7, Market-st. Dep £2 2s

***Bristol.**—Telephone Exchange.—Erection of, at Westbury-on-Tyne, Bristol, for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

***Liverpool.**—Dwellings.—Erection of 34, in Holly-st., for the Housing Committee of the City of Liverpool. Acting Dir. of Housing Municipal-buildings, Dale-st., Liverpool. Dep. £2 2s.

**Newton Abbot.**—Painting.—Also colouring and minor repairs at several Guardians' scattered homes, for B.G. F. Horner, clerk, Union Offices, 64, East-st.

**NO DATE.**

**Grimsby.**—Extensions.—In Kent-st., for the "Grimsby Daily Telegraph." Blackmore, Sykes & Co., architects, Ruskin-chambers, Scale-lane, Hull.

***Hastings.**—Alterations and Additions.—To shop premises (Queen's-rd., Hastings). Timothy Whites (1928), Ltd. (Construction Dept.), 30, Chandos-st. Portsmouth.

**Ipswich.**—Demolition.—Cumberland House, St. Helen's-st. H. R. Hooper & Garrard, AA.R.I.B.A., architects, 13, Queen-st

**Minnigaff.**—Repairs.—Also part rebuilding of Murray's Monument, in parish of Minnigaff, near Newton-Stewart. Andrew Thomson, architect, Newton-Stewart.

***Portsmouth.**—House and Shop.—Erection of. Apply, Elliott, Longmoor-road, Liphook.

**Reigate.**—Houses.—Dovers-green, Reigate. E. Penfold, architect, Reigate.

## MATERIALS, etc.

**JUNE 17.**

**Tyldesley-with-Shakerley.**—Highway Materials.—for the U.D.C. F. E. Jones, S.

**JUNE 19.**

**Birkenhead.**—Building Materials.—For Corporation Gas Works. Gas Engineer, Gasworks. Thomas-st.

**Farnworth.**—Granite Setts, etc.—For U.D.C. F. Ashton, S

**Howth.**—Chippings, etc.—For U.D.C. F. Higginbotham, Town Surveyor, Howth, or 3, Clare-st., Dublin.

**JUNE 20.**

**Bristold.**—Bricks, etc.—For Port Authority. W. P. Wordsworth, for Chief Engineer, Avonmouth Dock.

**Kingston-upon-Hull.**—Building Materials.—For Electricity Dept. J. N. Waite, City Electrical Engineer and Manager, Electricity Works, Sculcoates.

**JUNE 25.**

**Feleshill.**—Granite.—For R.D.C. J. B. Wikeley, E. and S.

**JUNE 29.**

**Stretford.**—Paving.—17 streets, for U.D.C. E. Parker, S. Dep. £2 2s.


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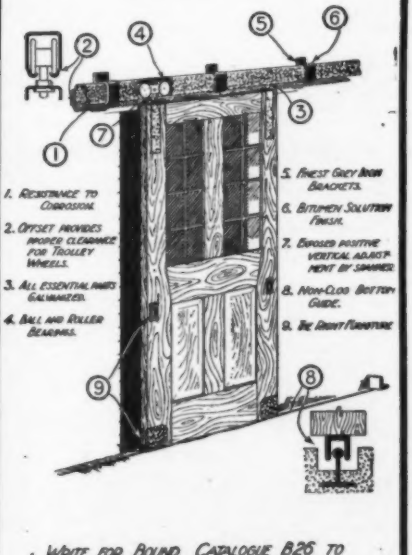
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## ENGINEERING, IRON AND STEEL

**JUNE 17.**

**Gravesend.**—Sewage.—Construction 4 reinforced concrete sludge beds at Corporation's sewage disposal works, Denton, for T.C. F. T. Grant, B.E. and S., 5, Woodville-ter.

**Liverpool.**—Pipes.—6¾ miles of 42-in. bitumen lined steel pipes, together with specials, on Cotebrook-Norton section, for T.C. W. Moon, T.C. Dep. £5 5s.

**JUNE 18.**

**Selsdon.**—Sewerage.—Provision and laying of stoneware and cast-iron sewers, varying in size from 4 in. to 9 in. diameter, and construction of sewage-disposal works, including tanks and filters and other appurtenant works in parish of Lower Penn, for R.D.C. W. Cannan, S. Dep. £5 5s.

**Thurso.**—Drainage.—(*a*) Works; and (*b*) piping in connection with construction of water and drainage works, comprising over 8 miles of new water main of 8 in. and 7 in. diameter, from Loch Calder to Thurso; quantity or service piping 6 in. to 2 in. diameter, increasing capacity of Ormlie Service reservoir; new main sewer in North Esplanade and other relative works, for T.C. Alex. Grant, M.Inst., C.E., Inverness.

**JUNE 20.**

**Egypt.** — Dam. — Further thickening and heightening of Aswan Dam, for Egyptian Government. Sir M. MacDonald & Partners, consulting engineers, 72, Victoria-st., S.W.1.

**Windsor.**—Sewers.—Construction of about 4¼ miles of 5 in., 7 in. and 9 in. stoneware pipe sewers, with manholes and other works, in parishes of Sunninghill and Sunningdale, for R.D.C. Lemon & Blizard, engineers, 9, Victoria-st., Westminster. Dep. £5 5s.

**JUNE 22.**

**Coulsdon and Purley.**—Reinforced Concrete Bridge, etc.—Construction of and the necessary road works at Foxley Hill-rd., Purley, over the Caterham branch line, for the Coulsdon and Purley U.D.C. Gilbert A. Ballard, O.B.E., A.M.I.C.E., engineer and surveyor, 69, Brighton-rd., Surrey. Dep. £5 5s.

**Glasgow.**—Bridges.—Two steel plateweb girder bridges on new Glasgow to Edinburgh-rd., section D-E (Polkemmet to Starlaw). D. A. Donald, engineer, 271, Alexandra-parade, Glasgow, E.1 Dep. £3 3s.

**Reading.**—Culvert.—Lowering of a C.I. culvert under Holy Brook, for Coley Park Estate. E. G. Crocker, civil engineer, 32, Victoria-st., Westminster, S.W.1.

**JUNE 24.**

**Hendon.**—Extensions.—Alterations and additions to existing sewage disposal works on north side of River Brent, for U.D.C. A. O. Knight, E. and S. Dep. £5.

**Mossley.**—Widening.—Extension to existing bridge spanning River Tame in Egmont-st., for T.C. B.E. and S. Dep. £1 1s.

**Thorne.**—Sewerage.—7,400 yds. lin. of 18 in., 12 in., 9 in., and 7 in. stoneware pipe sewers, with concrete manholes and other appurtenant works, at Hatfield, for R.D.C. W. H. Radford & Son, civil engineers, Albion-Cham., King-st., Nottingham. Dep. £3 3s.

**Nottingham.**—Heating, etc.—At Bagthorpe Infirmary and Institution, Hucknall-rd., for T.C. T. J. R. Kiernan, consulting engineer, Artillery House, Artillery-row, Victoria-st., Westminster, S.W.1. Dep. £5.

**JUNE 26.**

**Edinburgh.**—Bridge.—Masonry, etc., required in construction of steel lattice girder bridge on new Glasgow to Edinburgh road (Section F-G Dechmont to Broxburn), for T.C. D. A. Donald, Engineer, 271, Alexandra-parade, Glasgow, E.1. Dep. £3 3s.

**JUNE 29.**

**East Riding.**—Bridge.—Ferro-concrete bridge near Beverley, on Beverley-Hull-rd., for C.C. C.S., County Hall, Beverley.

**JULY 2.**

**London.** — Bridgework. — For Director-General, India Stores Department, Belvedere-rd., Lambeth, S.E.1.

## ROAD, SEWERAGE, AND WATER WORKS

**JUNE 17.**

**Liverpool**—Flags.—Supplying and laying granolithic flags to Lower Playground at Liverpool Institute, Mount-st., for T.C. Land Steward and Surveyor.

**Middlesex.**—Main.—Laying and jointing of 4,100 lin. yds. of 42 in. main, together with connections and contingent works, between the Board's pumping stations at Kempton-park and Hampton, for M.W.B. G. F. Stringer, clerk, 173, Rosebery-av., E.C.1. Dep. £10.

**Mitcham.**—Making-up.—Of Mitcham-park in tarmacadam, for U.D.C. S.

**Mountain Ash.**—Surfacing.—Resurfacing with tarred blast furnace slag macadam 2 in. thick, in 2-coat work on existing tarred slag bottoms, about 4,000 super yds. of Glyngwyn-st., Miskin; about 3,000 super yds. of Penrhiwceiber-rd., Penrhiwceiber and about 4,000 super yds. of Pentwyn-av., Penrhiwceiber, for U.D.C. W. G. Thomas, E. and S.

**Mountain Ash.**—Road.—Resurfacing with tarred macadam 4 in. in thickness on Council's prepared foundations on Old Ynysybwl-rd., Ynysybwl, for U.D.C. W. G. Thomas, E. and S.

**JUNE 18**

**Abingdon.**—Sewer.—Laying of about 540 yds. of 9 in. glazed stoneware pipe sewer, with manholes and ventilator, at Norman-av., for T.C. W. H. Lewis, B.S. Dep. £1 1s.

**Tottenham.**—Making-up.—Private street (approx. 2,550 yds. super of tarmacadam carriageway), for U.D.C. E. Dep. £1.

**Wealdstone.**—Making-up.—Surfacing carriageways and paving footpaths of three roads constructed on Elmgrove-rd. housing site. H. Walker, S. Dep. £1 1s.

**JUNE 19.**

**Breconshire.** — Reconstruction. — Of Pontybat-Llyswen-rd., for Brecknock and Hay R.D.C.'s. J. M. Richards, C.S., Brecon. Dep. £10.

**Broadstone.**—Drainage.—Great Western-sq. and Great Western Villas, for Great Southern Railways. H. S. Coe, secretary, Kingsbridge Station, Dublin. Dep. £1 1s.

**Hendon.**—Widening.—Also reconstruction of Whitchurch-lane and Marsh-lane, Little Stanmore, for R.D.C. H. W. Rackham, E. and S. Dep. £5 5s.

**Hendon.**—Making-up.—Hill View-gardens, Pinner, Parkside-way, Pinner, Priory-way (sec. 2), Pinner, School-lane, Pinner, Elm-park, Great Stanmore, for R.D.C. H. W. Rackham, S. Dep. £3 3s.

**Hendon.**—Culvert.—30 in. concrete tube culvert about 60 yds. in length, at Uxbridge-rd., Harrow Weald, for R.D.C. H. W. Rackham, E. and S.

**Meath.** — Resurfacing. — In tar bitumen macadam Dublin-Trim-rd., from Black Bull to point near Batterstown, for C.C. C.S., Navan. Dep. £1.

**JUNE 20.**

**Luton.**—Widening.—Excavation and removal of earth in connection with widening Hart-lane. J. W. Tomlinson, B.E., 18, Upper George-st.

**South Mimms.**—Sewers.—1,900 yds. of concrete tube and cast-iron sewers of 15 in. and 12 in. dia., together with manholes, ventilating shafts, and other appurtenant works in Mutton-lane, for R.D.C. John Taylor & Sons, engineers, Caxton House, Westminster, S.W.1. Dep. £5.

**West Ham.**—Repairing.—Roadways in Forest Gate Sick Home, 95, Forest-lane, Forest Gate, E.7, for B.G. L. E. Fraquet, clerk, Board Room, Union-rd., Leytonstone, E.11.

**JUNE 21.**

**Belfast.**—Spraying.—Tar spraying and other incidental work to playgrounds of Everton P.E. school, for C.B. Education Architect, Victoria-st.

**Ramsey.**—Road—Reinforced concrete road across Oil Mills Drove, Ramsey, for 1 mile, 1,510 yds., for Hunts C.C. H. Leete, C.S. Dep. £2 2s.

**JUNE 22.**

**Dalbeattie.**—Paving.—Excavation, concreting and sett paving portion High-st. area, about 3,400 sq. yds., for T.C. J. & J. M. Little, Town Clerk. Dep. £2 2s.

***Dartford.**—Repairs.—To roads, and tarring at Joyce Green small-pox hospital, for M.A.B. T. Cooper, Engineer-in-Chief. Dep. £1.

**Dingwall.**—Surface Spraying.—For about 16,000 sq. yds., for T.C. J. & W. S. Dewar, Town Clerks.

**Ilford.**—Widening.—Also improving Fencepiece-rd., Barkingside, for T.C. B.E. Dep. £2 2s.

**JUNE 24.**

**Beddington and Wallington.**—Making-up.—Of Demesne-rd., for U.D.C. S. F. R. Carter, E. and S. Dep. £1 1s.

**Friern Barnet**—Making-up.—Of Lewes-rd., for U.D.C. J. Montague Gameson, E. and S. Dep. £2 2s.

**Rathmines and Rathgar.**—Road.—Construction Rathgar-rd. in Trinidad asphalt, for U.D.C. S.

**Wicklow.**—Main.—New cast-iron water main in Blessington, for County Health District of Wicklow. P. J. Foley, Board's Engineer, 102-103, Grafton-st., Dublin.

**NO DATE.**

**Loughborough.**—Main.—Providing, excavating for, laying and jointing about 472 yds. of 15 in. and about 112 yds. of 12 in. cement-lined spun cast-iron water mains, including all sluice valves, hydrants and other apparatus in Market-place, Biggin-st., Church-gate, Sparrow-hill and Nottingham-rd., for T.C. A. H. Walker, Waterworks Engineer. Dep. £2 2s.

**Valley.**—Extension.—Approximately 150 yds. of 9 in. and 1,050 yds. 6 in. sewers and necessary manholes in connection with sewerage of Rhosneigr, Anglesey, for R.D.C. Henry Adams & Sons, engineers, 60, Queen Victoria-st., E.C.4.

## Auction Sales, Tenders etc.

**JUNE 18.**

**Aldershot.**—Horne & Co. will sell, at the Field Stores, Redan Hill, Aldershot, Hants, by order of the Secretary of State for War, an assortment of R.E. Constructional Stores and Building Materials, Electrical Stores and Cable. Admission by catalogue only. Auctioneers, 74, Coleman-street, E.C.4.

***Middlesex.**—Charles R. Davis & Co. will sell, on the building site, Greenford-av., Southall, under a Deed of Assignment, re H. E. Skull, by order of the Trustees, on completion of Housing Scheme, Southall, Middx., the whole of the plant. Auctioneers, 285, Borough High-street, S.E.1.

***Staffordshire.**—Perry & Phillips, Ltd., will sell on the premises, Bellamour Hall, near Rugeley, Interior and Exterior Fixtures and Fittings, previous to demolition of the mansion. Auctioneers, 59, High-street, Bridgnorth.

**Surrey.**—Hampton & Sons will sell, by order of the Executors, at the St. James' Estate Rooms, 20, St. James'-square, S.W.1, Freehold Residential and Building Property, known as "Edmondscote," Frimley. Auctioneers, 20, St. James'-square, S.W.1.

**JUNE 19.**

***Fulham.**—Henry Butcher & Co., will sell (by order of Messrs. Auster, Ltd., who have disposed of the lease of the premises) on the premises, 126/128, New King's-rd., Fulham, S.W.6., surplus plant, machinery, stock and stores of a motor-car accessory manufacturer. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

**Mortlake.**—Frank G. Bowen, Ltd., will sell (in bankruptcy, by Order of the trustee, re A. J. Kelleway, t/a Lloyd Construction Co.), at Portobello Works, Mortlake, the plant, machinery and stock of joiners, shop fitters and motor body builders, c2s, Aldersgate-st., London, E.C.1.

**JUNE 20.**

**London.**—Henry Butcher & Co. will sell, by order of Messrs. Wilson & Smith, Ltd., on the premises, 7 and 8, King William-street, Strand, W.C., Stock-in-Trade of Furnishing Ironmongery and Hotel Requisites, Cutlery and Tools, Builders' and other Hardware, Workshop Plant and Equipment, etc. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

***London.**—Herbert W. Dunphy & Son will sell at 155, Queen Victoria-st., E.C.4, freehold building site over one acre of land with detached freehold residence, The Hermitage, Wingate-rd., with vacant possession; also freehold ground rents. Auctioneers, 162, Goldhawk-rd., W.12.

**JUNE 26.**

**Southend-on-Sea.**—Goddard & Smith will sell, at low reserves, at the Hotel Victoria, Southend. Freehold Building Land at Thorpe Bay, on the Thorpedene Estate, comprising about 60 acres. Auctioneers, 22, King-street, St. James's, S.W.1.

**JUNE 27.**

**London.**—Dixon & Co. will sell (unless previously sold), at the London Auction Mart, 155, Queen Victoria-street, E.C., Freehold Building Land at Carshalton Beeches, in Banstead-road and South-way. Auctioneers, Railway-approach, Sutton, Surrey.

***London.**—Farebrother, Ellis & Co., will sell (unless previously disposed of by private treaty), at the Auction Mart, 155, Queen Victoria-street, E.C.4, Freehold Residence, 125, Queen's Gate, and 17, Queensbury-mews West. Auctioneers, 29, Fleet-street, E.C.4, and 26, Dover-street, W.1.

**JULY 2.**

***Hastings.**—Hampton & Sons will sell, at the St. James' Estate Rooms, 20, St. James'-square, S.W.1, Freehold Residential and Building Property, "Lantern House," Fairlight, near Hastings, 27 acres, vacant possession. Auctioneers, 20, St James'-square, S.W.1.

**JULY 4.**

***London.**—W. G. Kimpton & Son will sell without reserve re F. R. Harmer, decd., freehold shop and builders' premises. Auctioneers, 34, Coleman-st., Bank, E.C.2.

**JULY 8.**

**London.**—Alfred Savill & Sons will sell, in lots, at the London Auction Mart, 155, Queen Victoria-street, E.C.4, Freehold Estate, known as "Gaynes Park," of 404 acres. Auctioneers, 51a, Lincoln's Inn Fields, W.C.2.

## Public Appointments

**JUNE 19.**

**Hendon.**—Quantity Surveyor required by the Hendon E.C. for the erection of the Orange Hill Modern Selective School on the Watling estate. James Anderson, Sec., Edu. Offices, The Burroughs, Hendon, N.W.4.

**JUNE 21.**

**London.**—Teacher of Architecture and Construction, full time, also Teacher required for Plastering and Brickwork, part time Director of Education, The Polytechnic, 309, Regent-st., London, W.1.

**JUNE 22.**

**Accrington.**—Architectural Assistant required in the Borough Engineer's and Surveyor's Department by the Accrington B.C. W. H. Warhurst, T.C., Town Hall, Accrington.

**JUNE 24.**

***Croydon.**—District Building Inspector required by the County Borough of Croydon. J. M. Newnham, T.C., Town Hall, Croydon, endorsed "Building Inspector."

**JUNE 26.**

***London.**—Clerk of Works (temporary) required in the Architect's Dept., L.C.C. Architect, The County Hall, Westminster Bridge, S.E.1.

**JUNE 27.**

***Birkenhead.**—Architectural Assistant required in the Borough Engineer and Surveyor's Department, for the Corporation of Birkenhead. E. W. Tame, T.C., Town Hall, Birkenhead, endorsed "Architectural Assistant."

***Norwich.**—Town Planning Assistant required by the Norwich City Council. J. S. Bullough, City Engineer, Guildhall, Norwich.

**Staffordshire.**—Architectural Assistant required by the Staffordshire E.C. The Architect, County Edu. Offices, Stafford.

**JUNE 30.**

**Cheltenham.**—Full-time Teacher for Building Subjects (day and evening classes) required by the Gloucestershire E.C. at the Cheltenham Technical School. The Principal, Technical School, Lansdown-rd., Cheltenham.

**JULY 1.**

***Punjab.**—Town Planner required in the Public Works Department, Building and Roads Branch, by the Government of the Punjab. The Secretary to the High Commissioner for India, General Department, 42, Grosvenor-gardens, London, S.W.1.

## PROPOSED NEW BUILDINGS AND OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer C.E.; County Surveyor, C.S.; County Architect, C.A. Surveyor, S.; Engineer, E.; Borough Architect, B.A. Architect, A.

**Ashton-under-Lyne.**—Corporation propose land off Broadoak-rd., for 92 houses.

**Bacup.**—T.C. approved: F. & J. H. Temperley, Ltd., Dulesgate, near Todmorden, 4 houses, Bankside-lane, and 2 houses, Parrock Lumb, Todmorden-rd.; Irwell Springs Printing Co., Ltd., extension to power house, Corner Dye Works.

**Barrow.**—R.D.C. received M.H. approval to acceptance of tender of J. S. Ford, at £7,450, for 22 houses, Boundary-rd., Mountsorrel.

**Belfast.**—Scheme for extension first-class pond, Templemore-av. baths, construction public gallery to seat 150 people, and of dressing apartments, and committee-room be considered by Corporation.

**Belfast.**—City Council approved £4,758 for extension swimming pond and provision of dressing-room accommodation at Templemore-av. baths.

**Bewdley.**—Pritchard & Godwin, F.R.I.B.A., architects, Bank-buildings, Kidderminster, for alterations, Wribbenhall school.

**Birmingham.**—Corporation spend £22,000 on four infant welfare centres in Tyburn-rd., Erdington, Trittiford-rd., Billesley; Shirley-rd., Acock's Green; and Allen's Cross Farm, Northfield. H. H. Humphries, City E.—Plans prepared for tuberculosis centre and analyst's laboratory in Margaret-st. Cost, £46,000.

**Birmingham.**—Plans submitted to B.E. for school buildings, for St. Catherine's, Horsefair.

**Blackburn.**—T.C. propose acquire Troy estate to provide for girls' secondary school and playing fields.

**Blackburn.**—T.C. approved: 5 houses, Livesey Branch-rd., J. Duckworth; 4 houses and shops, Burnley-rd., T. Eccles; 3 houses, Shorrock-lane, J. Duckworth; addition to Church, Christian Science Church, Dukes Brow, The Christian Science Church Board of Directors.

**Blackpool.**—C.B. resolved B.S. be instructed prepare plans for maternity home.—B.S. submitted applications from Borough Electrical Engineer for permission to erect two transformer sub-stations on South Shore estate.—Plans passed: 4 houses, Condor-grove, P. Round; 2 houses, Magdalene-rd., R. & H. Fletcher; 6 houses, Toronto-av., H. Henson; 8 houses, Dudley-av., R. Fielding & Son; 6 houses, Berwick-rd., Armstrong & Heward; 4 houses, Lomond and Goldsboro-av., Hall Estate Building Co.; 12 houses, Antrim-rd., C. & C. Hilton.—B.S. to obtain tenders for hangar on aerodrome site.

**Blackwell.**—M.H given general approval to R.D.C. for £165,000 scheme undertaken jointly by Blackwell and Warsop Councils to meet extensive shortage of water.—Council decided sanction 14 parlour type and 46 non-parlour houses at Upper Langwith.

**Bolton.**—T.C. approved: Finance Committee, 58 houses, Patterson-st. and Harrop-st.; F. H. Cartwright, 14 houses, Paris-st.; Drinkwater and Whittle, 4 houses, Woodland-av.; J. Archer, 6 houses, Crompton-way.

**Bolton.**—Extensions and improvements to Socialist Hall, Ltd., Wood-st. Bradshaw Gass & Hope, FF.R.I.B.A., architects, 19, Silverwell-st.

**Bournemouth.**—T.C. approved: 3 houses, Claremont-rd., S. G. Ward; 3 pairs of houses, Broadley-rd., M. Brown & Son; 9 houses and garages, Claremont-av., H. B. & E. Mudge; church, Charminster-rd., Rev. O. H. Shiner; 6 houses, Bower and Brackendale-rds., M. Kerr; 6 houses, Elmes-rd., W. H. V. Haycroft; 6 houses, Rosebud-av., A. C. Barnes & Co.

**Bournemouth.**—Jackson & Greenen, L. & A.R.I.B.A., architects, 5 and 7, Yelverton-rd., for omnibus station at Exeter-rd., for Hants and Dorset Motor Services, Ltd.

**Brentwood.**—Funds raised to erect elementary Catholic school for Dagenham area.

**Bridlington.**—E.C. decided to take preliminary steps for central school; cost, £25,000; accommodation, 700.

**Bristol.**—Rd. James & Steadman, architects, 31, Nicholas-st., have prepared plans for business premises corner Unnity-st. and College-green.

**Burnley.**—T.C. propose 130 houses at Bardenlane, estimated to cost £50,897.

**Chesterfield.**—E.C. decided make recommendation to T.C. for £19,583 for erection "William Rhodes" school at Boythorpe.

**Chesterfield.**—Wilcockson & Cutts, 12, Saltergate, architects for rebuilding "Shakespeare Inn" at Sutton-in-Ashfield.

*See also our List of Contracts, Competitions, etc.

**Co. Wicklow.**—Board of Health approved £500 for accommodation for sisters county home and £700 improved heating in laundry.—Board also approved engineer's estimate of £640 repairing Rathdrum dispensary and residence.

**Doncaster.**—M.H. sanctioned £73,664 for 214 houses on Intake site.—E.C. recommended application to Ministry for £17,430 for new Wheatley schools, £28,920 for new Intake schools, £7,486 for a site for new Central schools and £35,570 for proposed new school on Tickhill-rd.

**Doncaster.**—T.C. approved: 4 houses, Green-st., C. H. Clayton; 4 houses, Harewood-rd., A. Wortley; senior schools, Beckett-rd. and Morley-rd., for E.C.; 4 houses, Grove-vale, Hall, Grainger, Wigglesworth & Griffiths; children's shelter, Elmfield-park, Corporation.

**Dublin.**—Plans passed by City Architect: Infirmary-rd., 53 houses, Dublin Artisans' Dwellings' Co.; 11, Grafton-st., alterations, Housing Corporation of Great Britain; 53-54, Phibsborough-rd., shops, R. G. Kirkham.

**Dudley.**—T.C. approved Moule & Sons, Ltd., High-st., Dudley, premises corner of King-st. and Churchfield-st.

**Dungannon.**—B.G. approved plans conversion Northland House into district hospital at £11,495

**East Ham.**—B.E. submitted draft plans for additional office, store and lavatory accommodation for Electricity and Tramways Department, together with men's recreation room to replace the existing recreation room to be displaced by central baths extensions.—M.H. approved appropriation of land in Church-rd. for electricity substation, for B.C.—B.E. submitted plans for alterations and extensions, Isolation Hospital.

**Egham.**—The Egham and Staines Electricity Co., Ltd., Staines, propose showrooms in High-st. G. E. Withers, F.R.I.B.A., architect, 50, Cannon-st., E.C.4.

**Farnworth.**—Congregational Union and members Congregational Church, Dixon's Green, Farnworth, proposing Sunday schools. The plans by H. B. Bearon, architect and surveyor, 201, Edleston-rd., Crewe.

**Hinckley.**—R.D.C. decided proceed with 42 additional houses at Barwell, Burbage, Higham-on-the-Hill, Sapcote, Sharnford, Stoke Golding and Stoney Stanton.

**Ilford.**—T.C. approved: W. J. Lewis, rebuilding 177/183, High-rd.; R. Prior, 10 houses, 42/60, Windermere-gardens; A. P. Griggs, 7 houses, 3/5, Chelmsford-gardens, and 14/22, Chichester-gardens; G. Saxton, 8 houses and garage, Tomswood-hill; A. Smith, 7 houses and garages, 76/88, Woodford-av.; J. W. Moore & Sons, 9 houses, 1/3 and 2/4, Forterie-gardens, 86/90 and 95/97, Levett-gardens; W. Wakeling, 8 houses, 49/53, Bute-rd.; F. Stimpson, 8 houses, 36/50, Highcliff-gardens; A. E. Symes, Ltd.; nurses' home, Claybury Asylum; J. Aldridge, 151 houses, 1/37 and 2/46, Meadway, 1/39, and 2/40, Tavistock-gardens, 1/53, and 2/42, Brixham-gardens, 2/40, Seaton-rd.; J. Aldridge, 8 houses and garages, 89/103, Horns-rd.; C. J. Dawson & Son, & Allardyce, alterations, 197/203, High-rd.

**Kingsbury.**—U.D.C. approved: 6 houses, Wakeman's Hill-av., James & Woodworth; 6 houses, Kingsbury-rd., Tomlin & Kearsley; 22 houses, Salmon-st. and Kingsmere-pk., Langold & Triscott; 32 houses, Lewgars estate, W. J. Jennings; 70 houses, Berkeley-rd., Gore Farm estate.

**Lancashire.**—Higher Education Sub-Committee of E.C. propose Leyland Grammar school, Church-rd., more accommodation for 300 mixed scholars, with provisional accommodation in future extensions for 420; cost, £43,387.—School at Poulton-le-Fylde; and extension to Baines's Grammar school.

**Lancaster.**—Corporation to erect 50 houses at £318 each.

**Leicester.**—In connection with development Braunstone housing estate proposed erect shops on four plots at Hallam-crescent East at £10,000.

**Leicester.**—City Council adopted recommendations of committees as follows: E.C. to take over Knighton Fields House from Housing Committee at £2,750 for housewifery centre; Health Committee for construction laboratory and dispensary block at Isolation Hospital at £2,346.

**Lismore.**—Waterford Co. Health Board approved conversion portion workhouse into a fever hospital at £750, and also amended estimate to repair Auxiliary Home at £3,300.

**Llandudno.**—Application by U.D.C. to borrow £9,127 for construction of underground conveniences in Prince Edward-sq., opposite War Memorial and near Promenade, subject to public inquiry.

**London.**—L.C.C. approved following: Deptford—Aske's, Hatcham, additional classrooms for boys, £3,385; Hammersmith, S.—Godolphin & Latymer, additional science laboratory, £610; Kennington—Archbishop Tenison's, new school for boys (completion) (including furniture), £2,655.

**London (Hackney).**—B.C. approved: A. J. King, Ltd., factory and construct a petrol-filling station, Downs-rd.; W. Silk & Son, Ltd., factory, rear 35, Shore-rd.; Upsons, Ltd., shop premises, 386 and 388, Mare-st.; H. W. Binns, 15 houses and garages at rear, Brooke-rd; C. P. Roberts & Co., L.C.C. ambulance station, Paragon-rd.; A. Ellis, showroom, Restall's Garage, 241, Lower Clapton-rd.

**London (Islington).**—Extensions to Mildmay Memorial Hospital, N., are to cost £3,500.

**London (Poplar).**—L.C.C. recommend £4,900 for housing for B.C.

**London (Woolwich).**—B.S. is to reconstruct 1, Gossage-rd., at £400.—Plans passed: J. R. Davies, Ltd., 23, High-st., Beckenham, 46 houses, Avery Hill-rd., Eltham; Ely & Allen, 83, Powis-st., Woodwich (on behalf of Taylor, Walker & Co., Ltd.), licensed premises, Eltham-rd.; J. G. Tuxford, Conway, North Wales, offices, White Hart-rd., Plumstead; F. Catton, 31, Burnt Ash-rd., Lee, S.E., 8 houses, Green-lane, Eltham; W. R. Hindmarsh, 6, Park-place, Eltham (on behalf of Furlongs, Ltd.), 8 houses with garages, West-park, Eltham.

**Manchester.**—H. Barnes, Ltd., builders, Fog-lane, Kingsway, proposing develop site, Burage-lane, for shopping centre.

**Manchester.**—T.C. approved: A. James, for J. W. Schofield, rebuilding of offices, 4, Commercial-st., Knott Hill; F. W. Platt, for Housing Committee, 326 houses, Lightbowne-rd., Moston-lane and new streets, Moston; H. S. Fairhurst, for R. Rylands & Sons, Ltd., warerooms, showrooms, and shops, Market-st., Tib-st., High-st., and Bridgewater-place.

**Moray.**—C.C. decided to instal water system for Burghead, Hopeman, Cummingston, Alves, and adjacent agricultural districts, at £14,200.

**Morecambe.**—T.C. approved: T. H. Coupe, 2 pairs houses, West End-rd.; Edmondson Bros., 82 houses, Torrisholme.

**Newbury.**—M.H. approved R.D.C.'s proposal erect 4 houses at Boxford and sanctioned £1,600.

**Newcastle.**—Sir James Knott informed Committee of Northern Counties Orphan Institution to defray £5,000 for swimming bath.

**Newcastle-under-Lyme.**—T.C. approved: 6 houses, Seabridge-rd., Maddock Bros.

**Nottingham.**—City Council decided sanction £10,000 for purchase premises on Red Lion-st. area.

**Nottingham.**—Catholics in Meadows district (Rev. Vernon Whiteman) found site for church. Cost of new church, £2,600.

**Oldham.**—C.B. approved: H. Mills, 6 houses, Gordon-av.

**Oundle.**—U.D.C. decided purchase 1¼ acres on New-rd. for 10 Council houses, subject to M.H.

**Oxted.**—New mortuary to be erected at £1,000.

**Plymouth.**—C.B. received B. of E. approval for extension of Morice Town school.—M.H. approved appropriation of the land at North Prospect for tramway shelter, Wolseley-rd.—Sanction of M.H. to £8,603 for 24 flats at Parkside, North Prospect, been received.—Plans passed: C. H. Williams, 4 houses, Peverell Park-rd.; British Sailors' Society, alterations and additions, Sailors' Home, The Octagon; F. J. & A. Coad, 7 garages, rear 1a to 15, Jephson-rd.; F. W. Woolworth & Co., alterations, 40 and 41, Fore-st.; Midland Bank, Ltd., alterations, 68, Union-st.; Electricity Department, sub-station, Victoria Wharves, and Ivydale-rd.

**Poole.**—T.C. approved: 2 houses and 2 garages, High-rd., Wallis Down, W. Carpenter; 4 houses, Winifred-rd., Corbin & Clark; extension to garage (showroom with living accommodation over) Poole-rd., S. Whitelock & Co. for F. C. Windsor.

**Portrush.**—U.D.C. decided purchase field at Crocknamock, and proceed with 27 houses there and 6 at Hamilton-place.

**Repton.**—R.D.C. received approval to Mickleover sewerage scheme at about £15,000 or £16,000.

**Rhyl.** — South Caernarvonshire Presbytery decided to establish preparatory school.

**Ripon.**—Corporation suggesting two sites to Air Ministry for an aerodrome.

**Romford.**—B.G. propose extensions Nurses' Home. M.H. proposing approval.

**Rotherham.**—T.C. approved principle of erection municipal lodging house, and site is to be sought.

**Sheffield.**—T.C. approved: 6 houses, Renshaw-rd., for J. Ramsden; 6 houses, Endowood-rd., for J. T. Redmile, 6 houses, High Storrs-rd., Colin Watson; 6 houses, Dransfield-rd., J. Moss, Ltd.; 4 houses, Moonshine-lane and Kinharvie-rd., Mrs. M. D. Wilson; 4 houses, Birch Farm-rd., J. H. Dyson; 62 houses, Greystones Grange-rd., Greystones Grange-crescent and Greystones-rise, W. Malthouse, Ltd.; 5 houses, Chesterfield-rd., trustees Douglas Haig Memorial Homes; 6 houses, Endcliffe Vale-av. and Endcliffe Glen-rd., R. Charlesworth, Ltd.; 112 houses, Wisewood estate, Corporation; 6 houses, Dixon, Dorothy and Garry-rds., M. Simpson; 4 houses, Meadow Bank-av., Dyson & Co.; 6 houses, Crawford-rd., Tom Leadbeater; 4 houses, Endowood-rd., T. H. Bailey; 6 houses, Whirlow Court-rd., C. G. Robinson; 4 houses, Strelley-av., J. Marsh; 5 houses, Trap-lane, Riley Watson.

**Shotton.**—Flintshire E.C. approved central school at £22,000.

**Slough.**—U.D.C. approved W. C. Edwards, Sunday school and chapel, Stoke Poges-lane.

**South Shields.**—T.C. approved: G. R. Smith, for Henderson & Woolgar, 28 semi-detached bungalows, Harton-lane East; F. W. Newby, for Smith & Co., re-building of foundry, Nile-st.

**Southall.**—U.D.C. is to have 161 more Council houses.

**Stapleford.**—M.H. held inquiry into application of R.D.C. for sewage scheme for Chilwell, Toton, and portion of Bramcote, at £36,650.

**Stoke-on-Trent.**—Additions to premises of Johnson Bros., Hanley. Plans by Edwin L. Maddock & Sons, architects, Lichfield-st., Hanley.

**Stretford.**—U.D.C. resolved application be made to B. of E. for approval to acquisition for purposes of Elementary Education of land adjoining site of Gorse Park central school.—M.H. sanctioned £50,962 and £58,838 for land, erection of 264 houses, and construction of streets and sewers at Barton-road.—Approved: 4 houses, Seymour-grove, Smith & Alicock, Ltd.; 4 houses, Urmston-lane, for Hampson & Co.; 58 houses, Ryebank, King's and Royston-rds., for W. R. Rochell; 10 houses, Cranford-av., for G. H. Brown & Son; 22 houses, Low Moss-lane and Westwood-rd., for Howard & Waring; 22 houses, Skelton-rd., for Suburban Building Co.

**Sunderland.**—Management Committee, Royal Infirmary, propose bringing forward another portion of scheme of rebuilding administration block at institution; cost, £40,000.

**Sutton and Cheam.**—U.D.C. approved: 26 garages in Sutton Common-rd., F. H. Doel; 4 houses, Chaucer-rd., H. S. Day; 14 garages, Malden-rd., N. Hinwood; 41 houses, Green-lane, Worcester-park, —. Shuttleworth; 4 houses, Hilbert-rd., Holthan & Lax; 6 houses, Forest-rd., T. E. Winter; 15 houses, by-pass rd. and Westfield-rd., Perkins; 7 shops and houses, Arandale-rd., G. W. Pergins; 7 shops and houses, The Crossways, Cheam, Onyx Property Investment Co.; and 22 houses, Morden-way, Braddy & Randall.

**Sutton Coldfield.**—T.C. approved: 4 lock-up shops, Birmingham-rd., C. E. Wilkinson; 12 houses, Lindridge-rd., R. J. Aston; 4 houses, Chester-rd., V. F. Eldred.

**Tavistock.**—R.D.C. to purchase site at Horrabridge for building purposes.

**Teignmouth.**—U.D.C. received sanction of M.H. to £3,450 for band-concert pavilion on north-eastern side of Den Bowling Green.

**Thornton Cleveleys.**—Notice been received by Council from Lancashire C.C. of intention to provide a new school for 500 scholars. Plans by County Architect, Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston.

**Torquay.**—Isolation hospital, Newton-rd., for Corporation. Plans being prepared under supervision of H. A. Garrett, Council's Engineer. Cost £11,600.

**Torquay.**—T.C. approved: 5 lock-up garages, "Coombe Court," Babbacombe Downs-rd., W. A. Chappell; 2 pairs of houses, Warbro'-rd., C. Dear & Son.

**Tottenham.**—M.A.B. extending temporary wards, at £975, of central hot water supply system at North-Eastern Hospital.

**Uttoxeter.**—Catholic school for St. Mary's Church. Plans by S. S. Proud, Town Hall, Uttoxeter, Staffs. Cost £7,000.

**Uxbridge.**—U.D.C. received M.H. sanction raising £4,800 for 12 houses at Waterloo-rd.—Approved: New streets and sewers, 848 houses, Hillingdon Park estate, J. F. Langer; transformer chamber, Hillingdon Park estate, Uxbridge and District Electric Supply Co.; ward block, Hillingdon Institution; 5 shops, Uxbridge-rd., Hillingdon, W. J. Clements.

**Wakefield.**—Outwood Parish Church propose Church schools. Cost £2,000. No architect yet appointed.

**Walthamstow.**—U.D.C. approved: 24 houses, Forest-rd., E. E. Wire; 32 houses, Guildford-rd., South Essex Property Co.; 17 houses, Hale End-rd., J. E. Nelson; church hall, Fulbourne-rd., Artistic Building Co.; 5 houses, Winchester-rd., H. C. Howes; 4 houses, The Avenue, West Bros. & Pettet; 7 houses, Marlborough-rd., H. Johnson.

**Walton.**—Council is to build another 44 houses.

**Wellingborough.**—U.D.C. sanctioned Crompton Boot Manufacturers, Ltd, extension of factory, Victoria-st.; Foster Bros., extension of factory, Loatland-st.

**Welwyn.**—Plans for High School in Garden City prepared by H. T. B. Barnard, F.R.I.B.A., 10, Bedford-row, W.C.1.

**Wembley.**—Wembley's proposed town hall will include a hall to seat 1,500 people, a reading-room and a library.

**Westhampnett.**—R.D.C. decided to invite tenders for 12 houses at Aldingbourne.

**Wexford.**—C.C. approved £625 for converting wing old hospital into apartments for nursing sisters of Co. Hospital.

**Whitmore.**—Plans for rebuilding Old Rectory by J. C. Thompson, L.R.I.B.A., "The Lodge," Dam-st., Lichfield.

**Wibsey.**—Site adjoining Wesleyan Chapel been acquired for institute and billiards-room.

**Wimborne and Cranborne.**—R.D.C. purchasing more sites for houses.

**Wortley.**—B.G. proposing alterations to Institution at Stocksbridge Nursing Association, estimated cost £671.


**ESTIMATING ON RIGHT LINES**

Everyone whose business it is to quote for building work should master the principles upon which estimating is based. These principles are clearly explained and illustrated in

**'HOW TO ESTIMATE'**

by J. T. REA,

a unique and invaluable work which is not excelled in thoroughness or in scope by any similar book known.

Fourth edition (now ready). 540 pages. Price 15s. net (by post 15s. 9d.). Containing thousands of prices and hundreds of examples of analysis, showing how a builder can make up rates for himself. In view of the difficulty of fixing standard prices under present conditions, the author has included an important series of Adaptation Tables and Percentages *which show how rates may be adjusted to suit variations at anytime.*

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# PRICES CURRENT OF MATERIALS.*

**Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.**

## BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

| | £ s. d. |
|---|---|
| Best Stocks | 4 5 6 |
| Second Hard Stocks | 3 19 6 |

Per 1,000. Delivered at London Goods Stations.

| | £ s. d. | | £ s. d. |
|---|---|---|---|
| Flettons, at | | | |
| King's Cross | 2 12 3 | Best Blue Pressed Staffs | 9 5 0 |
| Do., grooved for Plaster ... | 2 14 3 | Do. Bullnose ... | 9 15 0 |
| Do., Bullnose... | 3 7 3 | Blue Wire Cuts | 7 5 0 |

Best Stourbridge Fire Brick :—

| | | | |
|---|---|---|---|
| 2½ in. ..... | 8 11 0 | 3 in. ..... | 10 3 0 |

GLAZED BRICKS—

| | | | |
|---|---|---|---|
| Best White Ivory, and Salt Glazed Stretchers ... | 21 0 0 | D'ble Str'tch'rs | 29 10 0 |
| | | D'ble Headers... | 26 10 0 |
| | | One Side and two Ends ... | 30 10 0 |
| Headers ..... | 20 10 0 | Two Sides and one End ..... | 31 10 0 |
| Quoins, Bullnose and 4½ in. Flats ..... | 27 10 0 | Splays, and Squints ..... | 23 0 0 |

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

### BREEZE CONCRETE SLABS

Delivered London

| | s. d. | | s. d. |
|---|---|---|---|
| 2 in. per yd. super. | 1 11 | 3 in per yd. super | 2 9 |
| 2½ in. ,, ,, | 2 4 | 4 in. ,, ,, | 3 6 |

| | s. d. | |
|---|---|---|
| Thames Ballast ..... | 9 9 | per yd. |
| Pit Sand ..... | 12 0 | ,, ,, |
| Thames Sand ..... | 12 6 | ,, ,, |
| Best Washed Sand..... | 12 6 | ,, ,, |
| ¾ in. Shingle for Ferro-Concrete ..... | 12 0 | ,, ,, |
| ¼ in. ..... | 12 6 | ,, ,, |
| ¾ in. Broken Brick..... | 11 6 | ,, ,, |
| Pan Breeze ..... | 8 0 | ,, ,, |

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads. Best Portland Cement. British.

Standard Specification. Test £2 6 0 to £2 8 0 29s. alongside at Vauxhall in 80-ton lots.

| | |
|---|---|
| Ferrocrete per ton extra on above ..... | 0 7 6 |
| Super Cement (Waterproof) ..... | 3 16 0 |
| Roman Cement ..... | 8 15 0 |
| Parian Cement..... | 5 15 0 |
| Keene's Cement, White ..... | 5 15 0 |
| ,, ,, Pink..... | 5 10 0 |
| Plaster, Coarse, Pink ..... | 3 0 0 |
| ,, ,, White ..... | 3 12 6 |
| ,, Fine ..... | 5 12 0 |
| Sirapite, Coarse ..... | 3 9 0 |
| ,, Finish ..... | 3 17 0 |
| Grey Stone Lime..... | 2 10 9 |
| Chalk Lime ..... | 2 10 9 |
| Best Ground Blue Lias Lime ..... | 1 17 6 |
| Hair ..... per cwt. | 2 2 6 |
| Granite Chippings ..... | 1 12 0 |

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

## STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube..... s. d. 2 10

BEER STONE—RANDOM BLOCK—
Free on rail at Seaton Station per ft. cube 2 3
Delivered free on rail Nine Elms, S.R. per ft. cube 3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.

PORTLAND STONE.—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube..... 4 4½
Do. do. delivered on road wagons at above stations, per ft. cube..... 4 5½
White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every foot over 20 ft *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.—

| | s. d. |
|---|---|
| F.O.R. Quarries, Wirksworth, Derbyshire, | |
| Random blocks from 10 ft. and over P. ft. cb. | 14 0 |
| Sawn two sides ..... ,, | 22 6 |
| Sawn three or four sides ..... ,, | 27 6 |

YORK STONE, BLUE—*Robin Hood Quality*, Delivered at any Goods Station, London.
6 in., sawn two sides landings to sizes (under 30 ft. super)..... Per ft. super 5 6
6 in. rubbed two sides, ditto ..... ,, 6 0
3 in. sawn two sides slabs (random sizes) ,, 2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... ,, 1 6½
1½ in. to 2 in. ditto, ditto ..... ,, 1 3½

HARD YORK—
Delivered at any Goods Station, London.
Scappled random blocks ..... Per ft. cube 6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super 5 1½
6 in. rubbed two sides, ditto ..... ,, 6 1½
4 in. sawn two sides slabs (random sizes) ,, 2 1½
3 in. ditto ditto ,, 2 10
2 in. self-faced random flags.....Per yd. super 8 8

## CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s.0d.

## WOOD.

GOOD BUILDING DEAL.

| Inches. | per stan. | Inches. | per stan. |
|---|---|---|---|
| 4 × 11 ..... | £30 0 | 3 × 9 ..... | £21 0 |
| 4 × 9 ..... | 26 0 | 3 × 11 ..... | 25 0 |
| 4 × 8 ..... | 25 0 | 2 × 11 ..... | 26 0 |
| 4 × 7 ..... | 23 0 | 3 × 9 ..... | 24 0 |
| 3 × 8 ..... | 22 0 | 2½ × 9 ..... | 24 0 |
| 3 × 7 ..... | 22 0 | 3 × 4½..... | 21 0 |
| 2½ × 7 ..... | 21 0 | 2 × 4 ..... | 21 0 |

PLANED BOARDS.

| | |
|---|---|
| 1" × 11 ..... | £30 0 1 × 9 ..... £28 0 |

PLAIN EDGE FLOORING

| Inches. | per sq. | Inches. | per sq. |
|---|---|---|---|
| ¾..... | 18/- | 1¼..... | 30/- |
| 1..... | 21/- | 1½..... | 34/- |
| 1 ..... | 24/- | | |

TONGUED AND GROOVED FLOORING

| Inches. | per sq. |
|---|---|
| 1 ..... | 24/- |
| 1¼..... | 30/- |
| 1½..... | 34/- |

| Ins. | BATTENS. | s. d. |
|---|---|---|
| ¾ × 2 | per 100 ft. | 2 6 |

MATCHING (BEST).

| Inches. | per sq. |
|---|---|
| ¾..... | 16/6 |
| 1..... | 19/- |
| 1 ..... | 24/- |

SAWN LATHS. s. d.
Per bundle ..... 2 6

1" AND UP THICK.

| | £ s. d. | £ s. d. |
|---|---|---|
| Dry Austrian Wainscot, per ft. cube ..... | 0 16 0 | to 0 18 0 |
| Dry American and/or Japanese Figured Oak, ft. cube..... | 0 14 0 | to 0 15 0 |
| Dry American and/or Japanese Plain Oak, ft. cube ..... | 0 10 0 | to 0 13 0 |
| Dry sq. edged Honduras Mahogany, ft. cube..... | 0 15 0 | to 0 18 0 |
| Dry Log cut Honduras Mahogany, ft. cube..... | 0 16 0 | to 1 1 0 |
| Dry Cuba Mahogany, ft. cube... | 1 1 0 | to 1 10 0 |
| Dry Teak, ft. cube ..... | 0 13 0 | to 0 15 0 |
| Dry American Whitewood, ft. cube ..... | 0 10 0 | to 0 14 0 |
| Best Scotch Glue, per cwt. ..... | 4 10 0 | to — |
| Liquid Glue, per cwt. ..... | 4 7 0 | to 5 10 0 |

## SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

| | £ s. d. | | £ s. d. |
|---|---|---|---|
| 24 by 12 ..... | 32 18 4 | 18 by 10 ..... | 18 12 11 |
| 22 by 12 ..... | 29 17 11 | 18 by 9 ..... | 16 9 2 |
| 22 by 11 ..... | 27 14 2 | 16 by 10 ..... | 15 12 6 |
| 20 by 12 ..... | 26 5 0 | 16 by 8 ..... | 12 3 9 |
| 20 by 10 ..... | 22 10 0 | | |

## TILES.

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000.

| | f.o.r. London. |
|---|---|
| Best machine-made tiles from Broseley or Staffordshire district..... | 5 7 6 |
| ditto hand-made ditto ..... | 5 17 6 |
| Ornamental ditto ..... | 6 2 6 |
| Hip and valley tiles (per dozen) { Hand-made ..... | 0 9 6 |
| { Machine-made ..... | 0 9 0 |

## METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

| | £ s. d. |
|---|---|
| R.S. Joists, cut and fitted ..... | 12 10 0 |
| Plain Compound Girders ..... | 14 10 0 |
| ,, Stanchions ..... | 16 10 0 |
| ,, In Roof Work ..... | 19 10 0 |

MILD STEEL ROUNDS.—To London Station, per ton

| Diameter. | £ s. d. | Diameter. | £ s. d. |
|---|---|---|---|
| ½ in. ..... | 12 0 0 | ⅝ in. to ¾ in. | 10 15 0 |
| ⅝ in. ..... | 11 0 0 | ⅞ in. to 2½ in. | 10 10 0 |

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

| | Tubes. Wrought Mild Steel. | Tubes. Genuine Staffs. Iron. | Fittings. ½ in. and under. | Fittings. Over ½ in. | Flanges. ½ in. and under. | Flanges. Over ½ in. |
|---|---|---|---|---|---|---|
| | % | % | % | % | % | % |
| Gas ..... | 67½ | 50 | 42½ | 45 | 52½ | 55 |
| Water ..... | 63½ | 46½ | 37½ | 40 | 47½ | 50 |
| Steam ..... | 60 | 42½ | 32½ | 35 | 42½ | 45 |
| Galv. gas..... | 55 | 37½ | 32½ | 35 | 42½ | 45 |
| Galv. water | 50 | 32½ | 27½ | 30 | 37½ | 40 |
| Galv. steam | 45 | 27½ | 22½ | 25 | 32½ | 35 |

C.I.—HALF-ROUND GUTTERS—London Prices ex Works

| | Per yd. in 6 ft. lengths. Gutters. | Angles and Nozzles. | Stop Ends. |
|---|---|---|---|
| 3 in. ..... | 1/3½ | 11½d. | 3½d. |
| 3½ in. ..... | 1/4½ | 1/1½ | 3½d. |
| 4 in. ..... | 1/6 | 1/3 | 3½d. |
| 4½ in. ..... | 1/7½ | 1/4½ | 4½d. |
| 5 in. ..... | 1/10½ | 1/6½ | 5½d. |

O.G. GUTTERS.

| | | | |
|---|---|---|---|
| 3 in. ..... | 1/8 | 1/4½ | 3½d. |
| 3½ in. ..... | 1/8 | 1/4½ | 3½d. |
| 4 in. ..... | 1/9½ | 1/4½ | 3½d. |
| 4½ in. ..... | 1/11½ | 1/7½ | 4½d. |
| 5 in. ..... | 2/4½ | 1/10½ | 5½d. |

RAIN-WATER PIPES, &c.

| Per yd. in 6 ft. | Pipe. | Bends, stock angles. | Branches, stock angles. |
|---|---|---|---|
| 2 in. plain..... | 1/10½ | 1/3 | 1/9½ |
| 2½ in. ,, ..... | 2/0½ | 1/4½ | 2/1½ |
| 3 in. ,, ..... | 2/6 | 1/9 | 2/7½ |
| 3½ in. ..... | 2/11½ | 2/0½ | 3/0½ |
| 4 in. ,, ..... | 3/5 | 2/6½ | 3/8½ |

L.C.C. COATED SOIL PIPES—London Prices ex Works.

| | Pipe. | Bends, stock angles. | Branches, stock angles. |
|---|---|---|---|
| | s. d. | s. d. | s. d. |
| 2 in. per yd. in 6 fts. plain | 3 3 | 2 4½ | 2 10 |
| 2½ in. ,, | 3 9 | 2 7½ | 3 7 |
| 3 in. ,, | 4 6 | 2 10 | 4 2½ |
| 3½ in. ,, | 4 11½ | 3 7 | 4 11½ |
| 4 in. ,, | 5 5½ | 4 0½ | 5 9 |

L.C.C. COATED DRAIN PIPES—London Price ex Works

| | Pipe, angles, stock angles. | Bends, stock Branches. |
|---|---|---|
| | s. d. | s. d. s. d. |
| 3 in. per yd. in 9ft. lengths | 4 4 | 5 1 8 9½ |
| 4 in. ,, ,, | 4 10 | 5 8 10 0 |
| 5 in. ,, ,, | 6 6 | 10 10 17 1 |
| 6 in. ,, ,, | 6 8 | 13 2 21 9 |

Gasket for jointing, 38/6 per cwt.

| | Per ton in London. |
|---|---|
| IRON— | £ s. d. to £ s. d. |
| Common bars..... | 11 0 0 to 12 0 0 |
| Staffordshire Crown Bars— Good merchant quality | 11 10 0 to 12 10 0 |
| Staffordshire Marked Bars..... | 14 0 0 ... 15 0 0 |
| Mild Steel Bars ..... | 10 0 0 ... 11 0 0 |
| Steel Bars, Ferro-Concrete quality, basis price ..... | 10 0 0 ... 11 0 0 |
| Hoop Iron, basis price ..... | 11 10 0 ... 12 10 0 |
| ,, Galvanised ..... | 27 0 0 ... 28 0 0 |
| Soft Steel Sheets, Black— Ordinary sizes, to 20 g.... | 13 0 0 ... 14 0 0 |
| ,, ,, ,, 24 g.... | 14 0 0 ... 15 0 0 |
| ,, ,, ,, 26 g. | 16 0 0 ... 17 0 0 |
| Sheets Flat Best Soft Steel, C.R. and C.A quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g. | 15 0 0 ... 16 0 0 |
| Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g..... | 16 0 0 ... 17 0 0 |
| Ordinary sizes, 6 ft. by to 3 ft. to 26 g.... | 18 0 0 ... 20 0 0 |

No. 1 quality £4 per ton extra.

| | |
|---|---|
| Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g. ..... | 16 10 0 ... 17 0 0 |
| Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g. | 17 0 0 ... 18 0 0 |
| Ordinary sizes, 6 ft. to 9 ft. to 26 g. ..... | 20 0 0 ... 21 0 0 |
| Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 2 ft. to 20 g. and thicker ..... | 21 0 0 ... 22 0 0 |
| Best Soft Steel Sheets, 22 g. and 24 g. ..... | 23 0 0 ... 25 0 0 |
| Best Soft Steel Sheets, 26 g. ..... | 24 10 0 ... 25 10 0 |
| Cut Nails, 3 in. to 6 in..... | 18 0 0 |

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

## LEAD, &c.

| (Delivered in London.) | £ s. d. |
|---|---|
| LEAD—Sheet, English, 4 lb. and up ..... | 33 0 0 |
| Pipe in coils ..... | 33 10 0 |
| Soil pipe ..... | 36 10 0 |
| Compo pipe ..... | 37 10 0 |

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt extra. Cut to sizes, 5s. cwt. extra.

| | |
|---|---|
| Old lead, ex London area, at Mills ..... per ton | 21 10 0 |

## COPPER.

| | s. d. |
|---|---|
| Seamless Copper tubes (basis)..... per lb. | 1 1½ |
| Strong sheet ..... ,, | 1 0 |
| Thin..... ,, | 1 1 |
| Copper nails ..... ,, | 2 3 |
| Copper wire ..... ,, | 2 4 |

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. | 2 in. |
|---|---|---|---|---|---|
| 29/- | 45/- | 76/- | 153/- | 246/- | 510/- per doz. |

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. | 2 in. |
|---|---|---|---|---|---|
| 41/6 | 62/- | 92/- | 174/- | 300/- | 588/- per doz. |

RIVER PATTERN SCREW DOWN MAIN FERRULES.

| ½ in. | ¾ in. | 1 in. |
|---|---|---|
| 39/6 | 60/- | 116/6 per doz. |

CAPS AND SCREWS.

| 1¼ in. | 1½ in. | 2 in. | 3 in. | 3½ in. | 4 in. |
|---|---|---|---|---|---|
| 7/6 | 10/- | 14/- | 23/- | 30/- | 42/- per doz. |

DOUBLE NUT BOILER SCREWS.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. | 2 in. |
|---|---|---|---|---|---|
| 7/6 | 11/- | 17/- | 29/- | 36/- | 63/- per doz. |

BRASS SLEEVES.

| 1¼ in. | 2 in. | 3 in. | 3½ in. | 4 in. |
|---|---|---|---|---|
| 10/- | 12/- | 20/- | 24/- | 31/- per doz. |

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. |
|---|---|---|---|---|
| 35/- | 56/- | 98/- | 162/- | 228/- per doz. |

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

| 1½ in. | 1½ in. | 2 in. | 3 in. |
|---|---|---|---|
| 8 lbs. P. traps ... | 33/- | 41/- | 56/- | 101/- per doz. |
| 8 lbs. S. traps ... | 35/- | 45/- | 66/- | 126/- ,, |

TIN.—English Ingots, 2/5 per lb. SOLDER.—Plumber's 1/1. Tinmen's 1/3, Blowpipe 1/4 per lb.

## PAINTS, &c.

| | | |
|---|---|---|
| Raw Linseed Oil, in pipes ..... | per gallon | 0 2 9 |
| ,, ,, ,, in barrels ... | ,, | 0 2 11 |
| ,, ,, ,, in drums ... | ,, | 0 3 1 |
| Boiled ,, ,, in barrels ... | ,, | 0 3 ' |
| ,, ,, ,, in drums ... | ,, | 0 3 4 |
| Turpentine in barrels ..... | ,, | 0 3 11 |
| ,, in drums (10 galls) | ,, | 0 4 1 |
| Genuine Ground English White Lead, per ton | | 54 0 0 |

(In not less than 5-cwt. casks.)
Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

## PRICES CURRENT OF MATERIALS (*contd.*)

### PAINTS, &c. (*contd.*)

GENUINE WHITE LEAD PAINT.

| | | £ | s. | d. |
|---|---|---|---|---|
| "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Potacco," "J." Brand, and other best brands (in 14 lb. tins) not less than 5 cwt. lots .. | per ton delivered | 72 | 10 | 0 |
| Red Lead, Dry (packages extra) .. | per ton | 39 | 0 | 0 |
| Best Linseed Oil Putty ..... | per cwt. | 0 | 15 | 0 |
| Filicol ..... | ,, | 0 | 15 | 0 |
| Size. XD quality ..... | tkn. | 0 | 3 | 6 |

### GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

| | Per ft. | | Per ft. |
|---|---|---|---|
| 15 oz. fourths .. | 2½d. | 32 oz. fourths ..... | 6½d. |
| 15 ,, thirds .. | 3½d. | 32 ,, thirds ..... | 8½d. |
| 21 ,, fourths .. | 3½d. | Obscured Sheet, 15 oz. | 3½d. |
| 21 ,, thirds .. | 4d. | ,, 21 ,, | 4½d. |
| 26 ,, fourths .. | 4d. | Fluted, 15oz. 6½d., 21oz. | 9d. |
| 26 ,, thirds .. | 6½d. | En'lled, 15oz. 4½d., 21 oz. | 6d |

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES. Per ft.

| | |
|---|---|
| ⅛ Rolled plate ..... | 4½d. |
| ⅛ Rough rolled ..... | 5½d. |
| Rough rolled ..... | 5½d. |
| Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White .. | 5½d. |
| Ditto, tinted ..... | 8½d. |
| Rolled Sheet ..... | 4½d. |
| White Rolled Cathedral ..... | 4½d. |
| Tinted do. ..... | 6½d. |

Cast plate is same price as rough rolled.

### VARNISHES, &c.

| | | Per Gallon. £ | s. | d. |
|---|---|---|---|---|
| Oak Varnish ..... | Outside | 0 | 14 | 0 |
| Fine ditto ..... | ditto | 0 | 16 | 0 |
| Fine Copal ..... | ditto | 0 | 18 | 0 |
| Pale Copal ..... | ditto | 1 | 0 | 0 |
| Pale Copal Carriage ..... | ditto | 1 | 4 | 0 |
| Best ditto ..... | ditto | 1 | 12 | 0 |
| Floor Varnish ..... | Inside | 0 | 18 | 0 |
| Fine Pale Paper ..... | ditto | 0 | 18 | 0 |
| Fine Copal Cabinet ..... | ditto | 1 | 2 | 6 |
| Fine Copal Flatting ..... | ditto | 1 | 0 | 6 |
| Hard Drying Oak ..... | ditto | 0 | 18 | 0 |
| Fine Hard Drying Oak ..... | ditto | 0 | 19 | 0 |
| Fine Copal Varnish ..... | ditto | 1 | 0 | 0 |
| Pale ditto ..... | ditto | 1 | 12 | 0 |
| Best ditto ..... | ditto | 1 | 2 | 0 |
| Best Japan Gold Size ..... | | 0 | 12 | 6 |
| Best Black Japan ..... | | 0 | 10 | 6 |
| Oak and Mahogany Stain (water) ..... | | 0 | 12 | 0 |
| Brunswick Black ..... | | 0 | 7 | 6 |
| Berlin Black ..... | | 0 | 14 | 0 |
| Knotting (patent) ..... | | 1 | 5 | 0 |
| French and Brush Polish ..... | | 0 | 17 | 0 |
| Liquid Dryers in Terebine ..... | | 0 | 9 | 0 |
| Cyrass Black Enamel ..... | | 0 | 7 | 0 |

# NEW BUILDINGS IN SCOTLAND

**Stonehaven.**—ACADEMY.—The sketch plans of the new Mackie Academy for Stonehaven have been provisionally approved by the Department, on the understanding that, when working drawings are being prepared, consideration will be given to certain suggested alterations.

**Lanark.**—HOUSING.—The Housing Committee of the Lower Ward of Lanark have received intimation from the Department of Health for Scotland approving of the acceptance of tenders for the erection of 198 additional houses.

**Rosyth.**—CHURCH.—For the purpose of raising funds required to supplement grants from the Home Mission Committee and from the Baird Trust for the erection of a new Church of Scotland at Rosyth, at an estimated cost of £5,200, a bazaar has been held.

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**Obituary.**

The death has occurred of Mr. William Hunter, builder, of Marionslea, Rothesay. Mr. Hunter was 89 years of age.

**A Builder's Estate.**

Mr. William Raworth (72), J.P., of 9, Carlton-road, Harrogate, Yorkshire, builder, for many years a member of the Town Council and the Education Authority, and Mayor in 1921-22 (net personalty £4,046), left £33,788.

**The Proposed New Library Buildings, Cambridge.**

It is reported that the erection of the new University Library may soon be begun. The Syndicate appointed to consider the plans prepared by the architect, Sir Giles Gilbert Scott, R.A., 7, Gray's Inn-square, W.C., has rendered its report. The report approves the plans, which includes such points as lifts, height of bookcases, and seating accommodation for 300 readers; although there was a minority which disliked the proposal for a tower in the building. The cost of the scheme is estimated to involve about £500,000.

# BUILDING TRADE WAGES IN SCOTLAND *

**The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.**

| | Masons. | Bricklayers. | Carpenters, Joiners. | Plasterers. | Slaters. | Plumbers. | Painters. | Labourers—Masons'‡ Bricklayers'‡ Plasterers'† |
|---|---|---|---|---|---|---|---|---|
| Aberdeen | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Airdrie | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Alexandria | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Arbroath | 1/6½ | 1/6½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/6½ | 1/1 |
| Ayr | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | 1/2½ |
| Bathgate | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8½ | 1/2 to 1/3 |
| Blairgowrie | 1/7 | 1/7 | 1/7 | 1/7½ | 1/5 | 1/7 | 1/4 | 10d. to 1/- |
| Bo'ness | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Coatbridge | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Dumbarton | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Dumfries | 1/6½ | 1/6½ | 1/6½ | 1/7½ | 1/6½ | 1/6½ | 1/6½ | 1/2 |
| Dundee | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/3 †1/2½ |
| Dunfermline | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/7½ | ‡1/2½ †1/2½ |
| Edinburgh | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/3½ †1/2½ |
| Falkirk | 1/7½ | 1/7½ | 1/7 | 1/8 | 1/7 | 1/7 | 1/8½ | 1/2½ |
| Fort William | 1/6 | 1/6 | 1/8 | 1/8 | 1/8 | 1/8 | 1/6 | 1/2 |
| Galashiels | 1/6½ | 1/7 | 1/6½ | 1/7 | 1/6½ | 1/6½ | 1/7 | 1/2 |
| Glasgow | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Greenock | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/7 | 1/2½ |
| Hamilton | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2 |
| Hawick | 1/7 | 1/7 | 1/7 | 1/7-1/7½ | 1/7 | 1/7 | 1/7 | 1/2½ |
| Helensburgh | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/7 | 1/2½ |
| Inverness | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/6 | 1/- to 1/2 |
| Kilmarnock | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | 1/2½ |
| Kirkcaldy | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Kirkwall | 1/6 | 1/5 | 1/4 | 1/5 | 1/5 | 1/4 | 1/4 | 1/- |
| Lanark | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Leith | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/3½ † 1/2½ |
| Motherwell | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Perth | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |
| Stirling | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/7½ | 1/2½ |
| Stirlingshire (Eastern District) .. | 1/7½ | 1/9 | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | 1/2½ |
| Wishaw | 1/7½ | 1/7½ | 1/7½ | 1/8½ | 1/7½ | 1/7½ | 1/8 | ‡1/2½ †1/2½ |

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 1095.

# NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

WRIGHTS (CLAPHAM), LTD. (239,372). Registered May 8. 264, Lavender-hill, S.W.11. Surveyors and estate agents, etc. Nominal capital, £500.

ISAAC TIMMINS, LTD. (239,935). Registered May 30. Builders and contractors, etc. Nominal capital, £1,000. H. Myers, Bwylchy-gros, Almondbury Bank, Huddersfield.

FRED. WILLIAMSON & SONS, LTD. (239,476). Registered May 11. 2, Dundas-street, Sunderland. Wallpaper, paint, colour, oil and decorators' merchants, painters, etc. Nominal capital, £5,000.

FRANK SMALL & Co., LTD. (239,461). Registered May 10. Builders' and general merchants, etc. Nominal capital, £2,000. Mrs. F. C. V. Small, Hardelot, 1, South-road, Weston-super-Mare.

WESTMORLAND GREEN SLATE QUARRIES, LTD. (239,521). Registered May 13. Station Buildings, Keswick, Cumberland. Nominal capital, £100.

WOOD STREET DEVELOPMENT TRUST, LTD. (239,496). Registered May 11. 20, Woodstreet, Kingston-on-Thames. Builders and contractors, etc. Nominal capital, £65,000.

NEW OAKHAM MINES, LTD. (239,412). Registered May 9. Oakham-road, Dudley. Brick and tile manufacturers and merchants, etc. Nominal capital, £1,500.

G. NEWTON (BUILDERS), LTD. (239,529). Registered May 13. Nominal capital, £500. P. Phillips, 132, Great Portland-street, W.1.

W. P. EDWARDS & Co., LTD. (239,540). Registered May 13. 88, St. Ann's-road, Harrow, Middlesex. Builders, contractors, etc. Nominal capital, £4,000.

ALBO BOARD, LTD. (239,551). Registered May 14. Bush House, Aldwych, W.C.2. Manufacturers of wall, mill and other boards and articles made from wood substitutes, etc. Nominal capital, £6,000.

ELSTREE HOUSING Co., LTD. (239,458). Registered May 10. Estate agents and builders, etc. Nominal capital, £2,000.

HENRY J. GREENHAM (1929), LTD. (239,443). Registered May 10. Building material merchants, cartage and general contractors and brick manufacturers. At Shepherd's Bush and Langley, Bucks. Nominal capital, £20,000.

PERCY TRIPLETE, LTD. (239,416). Registered May 9. Builder. Wanstead, Romford. Nominal capital, £1,000.

LORAINE ESTATES, LTD. (239,405). Registered May 9. 4, New Bridge-street, E.C.4. Builders, contractors, etc. Nominal capital, £2,000.

COPP BROS., LTD. (239,395). Registered May 9. Builders, contractors, etc. Nominal capital, £3,000. A. W. Copp, Ednovean, Pontypridd-road, Barry.

BWLCH QUARRY Co., LTD. (239,376). Registered May 8. Quarrymasters and stone merchants, etc. Nominal capital, £800.

BEVAN & MORRIS, LTD. (239,374). Registered May 8. Builders, general and public works contractors, etc. Nominal capital, £3,000.

T. TIMOTHY & SON, LTD. (239,466). Registered May 10. Builders' merchants and timber merchants, Ystrad Saw Mills, Ton Pentre, Rhondda Valley. Nominal capital, £1,500.

BRENT FENCING AND TIMBER Co., LTD. (239,360). Registered May 8. The Brent Works, Edgware-road, Cricklewood, N.W. Nominal capital, £1,000.

USHER & HOWES, LTD. (239,868). Registered May 27. Co-operative Chambers, Carts-lane, Leicester. Joiners and builders. Gwendolen-road, Leicester. Nominal capital, £1,000.

MOORHOUSE & BARKER, LTD. (239,824). Registered May 25. Builders, joiners, shopfitters, etc. Thornaby-on-Tees. Nominal capital, £5,000.

# CURRENT PRICES FOR BUILDING WORK IN LONDON*

## EXCAVATOR.

| | | s. | d. |
|---|---|---|---|
| Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep | per yard cube | 11 | 0 |
| Add if in clay | " " | 1 | 0 |
| Add for every additional depth of 6 ft. | " " | 0 | 6 |
| Planking and strutting to trenches | per foot super | 0 | 5 |
| Do. to sides of excavation, including shoring | " " | 1 | 0 |

## CONCRETOR.

| | | | |
|---|---|---|---|
| Portland cement concrete in foundation 1 to 6 | per yard cube | 38 | 0 |
| Add if in underpinning in short lengths | " " | 7 | 0 |
| Add if in floors 6 in. thick | " " | 3 | 3 |
| Add if in beams | " " | 3 | 9 |
| Add if aggregate 1 : 2 : 4 | " " | 10 | 0 |
| Add for hoisting not exceeding 10 ft. beyond the first 10 ft. | " " | 2 | 6 |

## BRICKLAYER.

| | | £ | s. | d. |
|---|---|---|---|---|
| Reduced brickwork in lime mortar and Fletton bricks | per rod | 32 | 0 | 0 |
| Add if in stocks | " | 7 | 10 | 0 |
| Add if in Staffordshire blues | " | 22 | 0 | 0 |
| Add if in Portland cement and sand | " | 1 | 10 | 0 |

### FACINGS.

| | | | |
|---|---|---|---|
| Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks | per ft. super | 0 | 0 | 1½ |

### POINTING.

| | | | | |
|---|---|---|---|---|
| Neat flat struck or weathered joint | " " | 0 | 0 | 3 |

### ARCHES.

| | | | | |
|---|---|---|---|---|
| Extra only to the price of ordinary brickwork :— | | | | |
| Fair external in half brick rings | " " | 0 | 0 | 10 |
| Axed in stocks | " " | 0 | 1 | 9 |
| Rubbed and gauged jointed in putty camber or segmental | " " | 0 | 6 | 0 |

### SUNDRIES.

| | | | | |
|---|---|---|---|---|
| Damp course in double course of slates breaking joint and bedded in Portland cement | " " | 0 | 1 | 0 |
| Setting ordinary register grates and stoves | each | 1 | 0 | 0 |
| Setting kitchener, including forming flues, &c., with all necessary fire bricks | " | 4 | 15 | 0 |

## ASPHALTER.

| | | s. | d. |
|---|---|---|---|
| Half-inch horizontal damp course | per yard super | 4 | 6 |
| Three-quarter-inch vertical damp course | " " | 9 | 6 |
| Three-quarter-inch on flats in two thicknesses | " " | 6 | 3 |
| Angle fillet | per foot run | 0 | 3 |
| Skirting and fillet 6 in. high | " " | 1 | 2 |

## MASON.

| | | | |
|---|---|---|---|
| York stone templates fixed | per foot cube | 13 | 0 |
| York stone sills fixed | " " | 22 | 0 |
| Bath stone and all labour fixed | " " | 10 | 6 |
| Beer stone and all labour fixed | " " | 15 | 0 |
| Portland stone fixed | " " | 20 | 0 |

## SLATER.

| | | | |
|---|---|---|---|
| Welsh 16 in. × 8 in. 3 in. lap, including nails | per square | 72 | 9 |
| Do. 20 in. × 10 in. Do. Do. | " | 80 | 9 |
| Do. 24 in. × 12 in. Do. Do. | " | 90 | 0 |

## CARPENTER AND JOINER.

| | | | |
|---|---|---|---|
| Fir framed in plates | per foot cube | 5 | 0 |
| Do. joists | " " | 5 | 6 |
| Do. roofs, floors and partitions | " " | 6 | 0 |
| Do. trusses | " " | 8 | 6 |

| | | ¾" | 1" | 1¼" | 2" |
|---|---|---|---|---|---|
| Deal rough close boarding | per sq. | 35/6 | 40/- | 45/- | 72/- |

| | | | |
|---|---|---|---|
| Fl.t centering for concrete floor, including struts or hangers | " | 50 | 0 |
| Do. to beams | per ft. sup. | 0 | 11 |
| Centre for arches | " | 1 | 6 |
| Gutter boards and bearers | " | 1 | 0 |

| FLOORING. | | ¾" | 1" | 1¼" | 1½" |
|---|---|---|---|---|---|
| Deal-edges shot | per sq. | — | 44/6 | 53/- | 60/6 |
| Do. tongued and grooved | " | — | 49/- | 57/6 | 65/- |
| Do. matchings | " | 45/- | 51/- | — | — |
| Moulded skirting, including backings and grounds | per ft. sup. | 1/6 | 1/9 | 2/- | 2/6 |

### SASHES AND FRAMES.

| | | s. | d. |
|---|---|---|---|
| One-and-a-half moulded sashes or casements | per foot super | 1 | 10 |
| Two Do. Do. Do. | " " | 2 | 1 |
| Add for fitting and fixing | " " | 0 | 3 |
| Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights ; average size | " " | 3 | 9 |

| DOORS. | | 1¼" | 1½" | 2" |
|---|---|---|---|---|
| Two-panel square framed | per ft. sup. | 2/1 | 2/4 | 2/6 |
| Four-panel Do. | " | 2/5 | 2/8 | 2/11 |
| Two-panel moulded both sides | " | 2/8 | 2/11 | 3/2 |
| Four-panel Do. Do. | " | 2/11 | 3/2 | 3/5 |

## CARPENTER AND JOINER—continued.

### FRAMES.

| | | s. | d. |
|---|---|---|---|
| Deal wrot moulded and rebated | per foot cube | 14 | 0 |

| | | 1" | 1¼" | 1½" |
|---|---|---|---|---|
| Plain deal jamb linings framed | per ft. sup. | 1/7 | 1/8 | 1/11 |
| Deal shelves and bea ers | " | 1/4 | 1/6 | 1/9 |
| Add if cross-tongued | " | 2d. | 2d. | 2d. |

### STAIRCASES.

| | 1" | 1¼" | 1½" | 2" | 2½" |
|---|---|---|---|---|---|
| Deal treads and risers in and including rough brackets | 2/1 | 2/4 | 2/9 | — | — |
| Deal strings wrot on both sides and framed | 1/8 | 2/- | 2/2 | 2/8 | — |

| | | s. | d. |
|---|---|---|---|
| Housings for steps and risers | each | 0 | 11 |
| Deal balusters, 1 in. × 1½ in. | per ft. run | 0 | 9 |
| Mahogany handrail : average, 3 in. × 3 in. | " " | 6 | 0 |
| Add if ramped | " " | 12 | 0 |
| Add if wreathed | " " | 24 | 0 |

### FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

| | | | |
|---|---|---|---|
| 6 in. barrel bolts | 8½d. | Rim locks | 2/- |
| Sash fasteners | 11½d. | Mortice locks | 4/6 |
| Casement fasteners | 1/5 | Patent spring hinges and letting into floor and making good | 19/- |
| Casement stays | 1/2 | | |
| Cupboard locks | 1/5 | | |

## FOUNDER AND SMITH.

| | | s. | d. |
|---|---|---|---|
| Rolled steel joists | per cwt. | 16 | 3 |
| Plain compound girders | " | 19 | 0 |
| Do. stanchions | " | 21 | 9 |
| In roofwork | " | 27 | 6 |

## RAIN-WATER GOODS.

| | | 3" | 4" | 5" | 6" |
|---|---|---|---|---|---|
| Half-round plain rebated joints | ft. run | 1/6 | 1/9 | 2/- | 2/6 |
| Ogee Do. Do. | " | 1/9 | 2/- | 2/6 | 3/3 |
| Rain-water pipes with ears | " | 1/9 | 2/7 | — | — |
| Extra for shoes and bends | each | 4/4 | 5/11 | — | — |
| Do. stopped ends | " | 1/11 | 2/4½ | 3/7 | 4/- |
| Do. nozzles for inlets | " | 2/2 | 2/7 | 3/10 | 4/3 |

## PLUMBER.

| | | s. | d. |
|---|---|---|---|
| Milled lead and laying in flashings and gutters | per cwt. | 48 | 6 |
| Do. Do. in flats | " | 47 | 6 |
| Extra labour and solder in coated cesspools | each | 6 | 9 |
| Welf joint | per ft. run | 0 | 6 |
| Soldered seam | " " | 1 | 3 |
| Copper nailing | " " | 0 | 3 |

| | | ½" | ¾" | 1" | 1½" | 2" | 4" |
|---|---|---|---|---|---|---|---|
| Drawn lead waste | per ft. run | 1/2 | 1/9 | 2/- | 3/4 | 4/- | — |
| Do. service | " | 1/8 | 2/2 | 2/7 | 3/10 | — | — |
| Do. soil | " | — | — | — | — | — | 6/9 |
| Bends in lead pipe | each | — | — | — | — | 3/3 | 8/2 |
| Soldered stop ends | " | 1/2 | 1/8 | 2/1 | 2/10 | 3/6 | — |
| Re.d lead joints | " | 11d. | 1/- | 1/3 | 1/11 | 2/4 | 4/10 |
| Wiped soldered joints | " | 2/10 | 3/6 | 4/- | 4/11 | 6/6 | 9/9 |
| Lead traps and cleaning screws | " | — | — | — | 14/7 | 19/6 | — |
| Bib cocks and joints | " | 6/4 | 9/7 | 15/4 | 41/- | — | — |
| Stop cocks and joints | " | 15/4 | 17/2 | 25/8 | 64/- | — | — |

## PLASTERER.

| | | s. | d. |
|---|---|---|---|
| Render, float and set in lime and hair | per yard sup. | 2 | 6 |
| Do. Do. Sirapite | " " | 2 | 9 |
| Do. Do. Keen's | " " | 4 | 0 |
| Add saw lathing | " " | 1 | 7 |
| Add metal lathing | " " | 2 | 6 |
| (Not including hangers or runners, etc., for suspended ceilings.) | | | |
| Portland cement screed | " " | 2 | 2 |
| Do. plain face | " " | 3 | 3 |
| Mouldings in plaster | per 1 girth | 0 | 1½ |
| One-and-a-half granolithic pavings | per yard sup. | 5 | 6 |

## GLAZIER.

| | | s. | d. |
|---|---|---|---|
| 21-oz. sheet plain | per foot sup. | 0 | 8½ |
| 26-oz. Do. | " " | 1 | 0 |
| Obscured sheet | " " | 1 | 1 |
| ⅛-in. rolled plate | " " | 0 | 9 |
| ¼-in. rough rolled or cast plate | " " | 0 | 10½ |
| ¼-in. wired cast plate | " " | 1 | 4 |

## PAINTER.

| | | s. | d. |
|---|---|---|---|
| Preparing and distempering, 2 coats | per yard sup. | 0 | 9 |
| Knotting and priming | " " | 0 | 7 |
| Plain painting, 1 coat | " " | 0 | 9 |
| Do. 2 coats | " " | 1 | 2 |
| Do. 3 coats | " " | 1 | 9 |
| Do. 4 coats | " " | 2 | 4 |
| Graining | " " | 2 | 3 |
| Varnishing twice | " " | 1 | 9 |
| Sizing | " " | 0 | 3 |
| Flatting | " " | 0 | 7 |
| Enamel | " " | 1 | 1 |
| Wax polishing | per foot sup. | 0 | 6 |
| French polishing | " " | 1 | 2 |
| Preparing for and hanging paper | per piece, 2/- to 4/- | | |

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

# TRADE NEWS

**Reinforced Wood Paving.**

We learn that Messrs. Wm. Griffiths & Co., Ltd., of Salisbury House, E.C., are laying a section of a new system of paving, patent "Tungsec" reinforced wood paving—supplied under exclusive licence by Messrs Calders, Ltd.—for the Islington Borough Council. The method employed is so simple that it is hardly believable that so many and important results are obtained. The only means used is a solid tongue, inserted in a groove in the end of each block overlapping on both sides and in the centre ¼ in., or whatever spacing is required. Correspondingly, at the other end of the block is a groove. This tongue engages in the groove of the adjacent block, and thus the whole of the longitudinal sections are interlocked. Thus, by one process, blocks are accurately spaced at all joints as well as interlocked, and the spacing allows the mastic grout to get well down into the joints and to the bottom of the blocks to prevent the ingress of water, which has so often had disastrous effects with road paving. This produces a watertight road. The "Tungsec" Wood Paving Co. are the owners of this patent, but the exclusive licence for the supply of these blocks is in the hands of Messrs. J. Calders, Ltd., of 1, Dover-street, W.1, from whom all particulars can be obtained. Information can also be obtained from the "Tungsec" Wood Paving Co., of 5, Chancery-lane, W.C.2. The system is the invention of Mr. William J. Bennett, managing director of the "Zeta" Wood Flooring Co. (1910), Ltd.

**Lamp Fittings.**

A leaflet showing a variety of styles of diffusing units has lately reached us from Philips Lamps, Ltd., of 145, Charing Cross-road. These "Phililite" fittings have been designed not only with a view to obtaining maximum efficiency, but also to incorporate new features, rendering the process of erection a matter of a few minutes. These fittings are eminently suitable for use in offices, banks, shops, restaurants, schools, etc., and architects engaged upon such buildings, or others where good, diffused light is necessary, should obtain this leaflet.

**"Industrial Vacuum Cleaning."**

Under this title Messrs. Sturtevant Engineering Co., Ltd., of 147, Queen Victoria-street, E.C.4, have issued a catalogue, No. 1324, which will be of great practical interest to the industrial architect. We believe that a simple type of vacuum cleaner was used in ancient Pompeii, but it was very different from the super-turbine cleaner which this booklet describes. Cleanliness means healthier conditions which in turn produce higher efficiency. For textile mills, leather works, potteries, paper mills and printing works, tobacco factories, and a score of other trades, there is Sturtevant plant, and we believe that users have unconditionally said that additional cleanliness brought about by this plant has saved the initial outlay in a very short time. A copy of this brochure should be in every industrial architect's hands. It will be sent upon application.

**Wood Block Flooring.**

The Improved Wood Pavement Co., Ltd., of Blackfriars House, New Bridge-street, E.C.4, have issued a new booklet calling attention to their "Firmosic" system of wood block flooring. In this system the deals, which are specially imported for wood paving, are thicknessed by special machinery to a uniform gauge, then cross cut into blocks, and before being creosoted a spline of wood is fixed along the bottom of one side; two small splines are fixed on the same side but within about three-quarters of an inch from the top, and a groove is also run along the end of the block. The blocks are laid dry and hammered up close so that no further movement can take place. The splines on the side of the block ensure a uniform space so as to receive the fixing material, and the groove across the end of the block permits the grout to make an effective seal against water getting under the paving.

The Company's grouting, "Improvia," is a specially prepared material carefully heated to a certain temperature, as over-heating tends to evaporate some of the fine oils. It should be poured in such a manner as to keep it in bulk and thus preventing cooling before it has filled the joints. This material may have to be applied two or three times at intervals of some hours to ensure the complete filling of the joints. The paving is finally covered with fine shingle which is usually rolled in with a light roller. The list of paving contracts carried out by this firm is imposing. It includes Kensington High-street; King's-row, Chelsea; High-street, Notting Hill Gate; Westminster Bridge-road; Piccadilly; Charing Cross-road; and the Strand. A copy of the brochure will gladly be sent to all road and borough surveyors and contractors upon application.

**"Slates and Slating."**

Under this title there has appeared a small brochure issued by the Votty & Bowydd Slate Quarries, Ltd., of 20, High Holborn, W.C.1, which will be sent to architects and others interested. It gives a few suggestions on slating from the technical aspect which should be of very considerable value. One particularly useful hint is given in a couple of sketches which demonstrate how to set out and fix a fireproof roof. "Votty" slates are quarried at Festiniog, N. Wales, and have been specified for use during 1928-9 by the War Department and Admiralty.

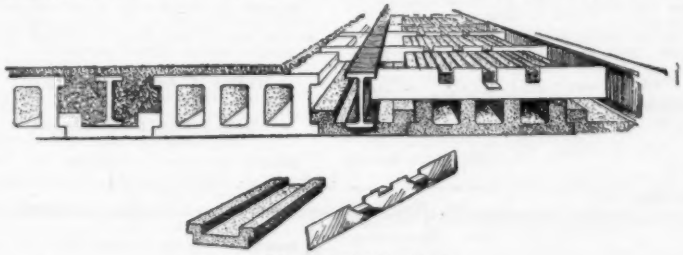
**An Engineer's Guide.**

Supplementary to our notice on May 31st of the "Engineer's Guide to Success," we would add that this booklet also deals very completely with the technical training requirements of all men engaged in the building industry, and who wish to take such examinations as those of the Institute of Builders, the Institution of Civil Engineers, etc. The book is obtainable free from the Technological Institute of Great Britain, Temple Bar House, E.C.4.

**A New Style of Flooring.**

Some eighteen months ago we drew attention to an insulative building material, then new, named "Fosalsil." This material—made from "moler" earth, a silt thrown up by the sea—consists of an immense number of minute shells, invisible to the naked eye, known as diatoms. Each shell contains innumerable little cells, each separately sealed, which give the "moler" peculiar insulative properties. It is a natural insulation material, combining good fire-resisting properties and mechanical strength with lightness and low cost. We now learn that a new form of reinforced floor, in which "Fosalsil" plays a large part, has lately come on the market. The Shipwright floor, manufactured and designed by the Shipwright Flooring and Engineering Co., Ltd., of 53, Victoria Street, S.W.1, is formed of main steel and concrete beams, reinforced with continuity rods where necessary over the bearings, and cross steels, which act as cross reinforcements and support the "Fosalsil" tiles. These last constitute the hollow filling between the main beams and provide a complete soffite or ceiling.

We learn that the embedding of the main steels in the ribs may add as much as 30 per cent. to the strength of the steel, and also renders it immune from fire and corrosions. The best features of self-centreing steel joist floors are also obtained, but assets of the floor to which attention may be further drawn are the insulation, sound and heat, which the floor gives; its lightness; and, lastly, the speed with which it can be laid. Architects, who will gain from the accompanying illustration some further knowledge of the methods of construction, should find a full knowledge of this new floor of service to them, and should call or write for further information.



A "Shipwright" Floor.

**Perforated Metal Work.**

Messrs. G. A. Harvey & Co. (London), Ltd., have recently issued two catalogues dealing with perforated metal work. The first, List 450, deals generally with pierced iron, steel, stainless steel, copper, lead, and practically every other metal, as well as paper and boards, etc., which meet every requirement from the screening of coke, gravel, etc., downwards. Catalogue 355 shows a few examples of artistic and decorative designs in perforated metals which should be of interest to architects. Radiator guards, ventilating panels and grilles, pipe guards, and all other ornamental metalwork, in all varieties of finish are illustrated. Application for the lists should be made to the firm at Woolwich-road, S.E.7.

**Paint Spraying.**

Messrs. L. G. Hawkins & Co., Ltd., of 30-35, Drury-lane, W.C.2, have recently produced a new agitator model of their electric "Sprayit" paint and varnish sprayer, which has been approved for factory use by the Home Office Factory Department. It is claimed for this device that it combines the advantages of portability, low initial investment, and small operating cost, with those refinements which, up to the present time, have been confined to spraying equipment of the most costly type. In addition to these advantages it offers another new feature, namely, positive agitation of the materials in the container, which keeps them thoroughly mixed and assures utilisation of all the ingredients. This equipment consists of a small rotary motor compressor unit weighing only 5 lb., which produces a constant pressure of 25 to 30 pounds to the square inch. The "Agitator" type gun weighs just a pound, and the operator is thus relieved of any strain while using it. By merely changing the nozzles, the spray can be regulated from a thin strip of only one-half inch in width to a wide even fan spray seven inches in width, for covering wide surfaces quickly, or to any width the operator may desire.

Messrs. Hawkins are developing a plan for national distribution through the paint industry, and manufacturers and distributors should write for further information. They may find it of value.

# TENDERS

**Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.**

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*

**Altofts.**—Sunday school for Upper Altofts Wesleyan Chapel Trustees. Mr. T. H. Hailstone, architect and surveyor, Council Offices:—
J. Bramham & Son, Ltd., Altofts £1,925 0 0
*G. Fenton, Tingley ..... 1,782 0 5

**Ampleforth.**—Sedimentation tanks and percolating filter at Ampleforth College, for the Governors. Messrs. Fairbank & Sons, engineers, Stonegate, York:—
*Parker & Sharp, Ltd., York.

**Ashton-under-Lyne.**—Two domestic science rooms at the West End Council school, for the C.B. Mr. P. Howard, F.R.I.B.A., architect, Moseley-street, Manchester Quantities by the architect:—
*Brown & Son, Burlington-street, Ashton-under-Lyne.

**Axminster.**—Public convenience in Castle-street, for the U.D.C.:—
*Clark & Son ..... £524

**Barrow.**—Alterations at 9, Paxton-terrace, for the Corporation. Mr. W. C. Persey, Borough Engineer. Quantities by the Borough Engineer:—
*Moody & Thompson, 159, Blake-street, Barrow-in-Furness ..... £654

**Barrow-on-Soar.**—Sewage disposal at Syston, for the R.D.C. Messrs. Pick, Everard, Keay & Gimson, engineers, 6, Millstone-lane, Leicester:—
*Andrew Blair Lyell & Co., Ltd., Birmingham ..... £3,476 7 10

**Belfast.**—Brick wall, with stone coping, gates and railings, in connection with widening of Stanmillis-road at Botanic-gardens-park, for the C.B. Mr. R. B. Donald, City Surveyor:—
*Wm. Logan & Sons, Limestone-road, Belfast.

**Birmingham.**—Church and school hall, etc., at George-road, Marsh Hill, Witton, for the Trustees of the Baptist Mission. Mr. J. Lawden, architect, Birmingham:—
*W. J. Whittall & Sons, Ltd., Lancaster-street, Birmingham ..... £5,000

**Blackpool.**—Further siding accommodation at the Gas Works, for the C.B.:—
*R. White & Sons.

**Bolton.**—58 houses off Hulton-lane, Bolton, for the Corporation. Mr. W. Russell Brown, Borough Surveyor:—
*Robert Myles, Ltd., Liverpool.

**Bradford.**—Electricity transformer station at Roundhill-street, Manchester-road, for the T.C.:—
*Mason's work*—*J. Thornton & Son.
*Asphalter*—*Tunstall's Rock Asphalte Co., Ltd.

**Bradford.**—Electricity transformer station adjoining the new Infirmary buildings in Duckworth-lane:—
*Mason's work*—*T. Obank & Sons, Ltd.
*Asphalter*—*Tunstall's Rock Asphalte Co., Ltd.

**Brierley Hill.**—74 houses, for the U.D.C.:—
*T. Barker & Sons ..... £27,492

**Bristol.**—82 houses on the Speedwell site, St. George, for the T.C. Mr. L. S. McKenzie, City Engineer and Surveyor, 51, Prince-street:—
*46 non-parlour*—
*E. A. W. Poole & Son, Hollywood-road, Brislington, Bristol ..... £16,132
*36 non-parlour*—
*J. Knox, Coronation-road, Bristol ... 12,920

**Cambridge.**—Alterations to the premises in Burleidge-street of the Co-operative Society, Ltd. Messrs. Bethell, Swannell & Durnford, F. & L.R.I.B.A., architects, 16a, John-street, Adelphi, W.C.2:—
*C. Kerridge, junr., Cambridge.

**Cambridge.**—Extensions to the library at Emmanuel College. Messrs. Leonard Stokes & Drysdale, architects, 102, Great Russell-street, W.C.1:—
*Contractors*—*T. Ruban & Sons, Baldock.
*Steelwork*—*Young & Co., London.
*Heating*—*G. N. Haden & Sons, Ltd., London.
*Electric lighting*—*Bailey, Grundy & Barrett, Ltd., Cambridge.

**Chelmsford.**—Painting the exterior of the military pavilion and scarlet fever block; creosoting exterior of hut; painting exterior of porter's cottage, at Isolation Hospital, Baddow-road, for the Joint Hospital Board. Messrs. W. H. Pertwee & Howard, architects, The Institute, London-road:—
*W. E. Wisbey, Chelmsford.

**Chepstow.**—Reconstruction and enlarging casual wards, and installing new low pressure heating and hot water system, etc., for B.G. Mr. Hugh J. Ward, architect:—
Bendall & Son, Chepstow ..... £2,197 15 0
J. H. Williams, Newport ..... 1,997 0 0
H. J. Walker, Bream ..... 1,715 0 0
*Hurd Bros. & Henderson, Chepstow ..... 1,679 3 0

**Chesterfield.**—Extensions to "Violet Markham" school, Highfield-lane, for the T.C. Messrs. Percy B. Houfton & Co., chartered architects, Market-place:—
*A. Heath, 128, Walton-road, Chesterfield.

**Chesterfield.**—Conversion of Highfield Hall into a junior school, for the E.C.:—
*G. Vallance & Son, Mansfield ..... £3,750

**Cleethorpes.**—Alterations to "The Mount," Millroad, for use as maternity home, for the Lindsey C.C. Messrs Scorer, Gamble & Co., architects Bank Street-chambers, Lincoln:—
Steel & Goddard, Grimsby ..... £689 19
Hewins & Goodhand, Ltd., Grimsby 647 10
Swaby & Walsham, Ltd., Grimsby ... 645 0
Wilkinson & Houghton, Ltd., Cleethorpes ..... 638 15
H. & C. Thompson Bros., Ltd., Grimsby ..... 602 16
E. E. Dale & Sons, Ltd., Cleethorpes ..... 544 0
*T. Wilkinson & Son, Cleethorpes ... 500 10

**Cricklewood.**—Factory in Edgware-road, for Messrs. R. M. Papelian, Ltd. Mr. Charles Marques, architect:—
*Contractors*—*Bierrum & Partners, London.
*Structural steelwork*—*C. & S. Construction Co., Ltd., London.
*Patent glazing*—*W. H. Heywood & Co., Ltd., London.
*Heating and hot water service*—*W. C. Fleet, London.
*Electric lighting and wiring*—*Marryat & Place, London.
*Sanitary fittings*—*Clark Hunt & Co., Ltd., London.

**Culham.**—Reconstruction of part of Nuneham Viaduct, over the River Thames, near Culham Station, for the G.W.R. Engineer, Paddington Station:—
*J. M. Broadfoot, The Woodlands, Newport (Mon.).

**Douglas (Isle of Man).**—Alterations to Onchan Wesleyan Chapel. Mr. J. E. Teare, 46, Athol-street:—
*Todhunter & Elliot, Ltd., 20, Duke-street, Douglas ..... £349 13

**Down.**—Wood block flooring, terrazzo flooring, steel casements, general ironmongery and sanitary fittings, for the County Regional E.C. Mr. Castor J. Love, architect and civil engineer, 11, Chichester-street, Belfast:—
*Wood block flooring*—*Hollis Bros., Ltd., Craven Hall, Hull.
*Terrazzo flooring*—*John Forsythe (Terrazzo), Ltd., 24-26, Gt. George's-street, Belfast.
*Sanitary fittings*—*Riddels, Ltd., Donegall-place, Belfast.
*Ironmongery* — *Riddels, Ltd., Donegall-place, Belfast, and *Joseph Blair, Ltd., Church-lane, Belfast.

**Dublin.**—Extensions to the Technical Institute, Bolton-street:—
Jas. J. Flynn ..... £17,794 3 8
M. O'Callaghan & Co., Ltd. ... 16,224 9 7
W. & J. Bolger ..... 16,041 5 6
Jas. Clarke ..... 15,599 1 0
McNally & Co., Ltd. ..... 15,498 0 0
G. & T. Crampton, Ltd. ..... 15,490 0 0
Jas. Beckett & Sons ..... 15,375 0 0
J. & R. Thompson (Dublin), Ltd. ..... 15,057 0 0
J. & P. Good, Ltd. ..... 14,920 0 0
H. & J. Martin, Ltd. ..... 14,823 18 8
Isaac Copeland & Sons ..... 14,808 14 9
*Collen Bros. ..... 14,670 0 0

**Dundee.**—Concrete work at (*a*) Hawkhill (Old) Public school; and (*b*) drainage work at Fairmuir Special school, Kingsway, Downfield, for the E.C. Master of Works, Education Office:—
(*a*)—
*Tulloch and Strachan, 62, Bell-street, Dundee ..... £501 11 6
(*b*)—
*D. Mollison, 23, Campbell-street, Lochee, Dundee ..... 100 2 0

**Dundee.**—Heating installation at the Grove Academy, Broughty Ferry, for the E.C. Master of Works, Education Office:—
*Robert Stewart & Sons, 90, Queen-street, Broughty Ferry ..... £1,642 16

**Dundee.**—Painting certain schools, for the E.C.:—
*Dens-road school*—
*Wm. Ross ..... £786 14 11
*Butterburn school*—
*Thos. Brown & Son ..... 541 16 5
*Hawkhill school*—
*Norwell & Co. ..... 481 6 9
*Mitchell-street school*—
*P. T. Roberts ..... 612 18 0
*Stobswell school*—
*Allan Boath, Ltd. ..... 944 0 0
*South-road school*—
*David Morrison ..... 183 4 0
(All of Dundee.)

**Durrow.**—Rebuilding the Courthouse, for the Queen's C.C.:—
Connolly & Cullen, Kilkenny ..... £1,012 2
P. Talbot, Lisduff, Urlingford, Co. Kilkenny ..... 750 0
County Surveyor's estimate ..... 564 0
*P. H. Brennan, Abbeyleix, ..... 562 16

**Easthampstead.**—Painting the exterior at the Infirmary, Bracknell, for the B.G.:—
W. J. Batt, Sandhurst ..... £230 0 0
S. H. Bucksey, Bracknell ..... 223 6 4
Spear & King, Crowthorne ..... 195 0 0
W. T. Foster, Twyford ..... 171 0 0
Goodall & Son, Reading ..... 157 15 0
H. W. Yates, Sunningdale ..... 137 0 0
*E. Brown, Bracknell ..... 132 18 0

**Enniskillen.**—Secondary school for girls:—
*J. T. Harvey ..... £8,133

**Epsom.**—Alterations and additions to the Cuddington Isolation Hospital, Banstead, for the Epsom (Rural), Sutton, Carshalton and Leatherhead Joint Hospital Board. Messrs. A. C. Williams & Pettitt, architects, Reid's-buildings, Ashley-road, Epsom. Quantities by Mr. C. W. Latter, 44, Bedford-row, W.C.1:—
*H. H. & F. Roll, Ltd., High-st., Epsom.

**Esher.**—Rebuilding of shop and showroom premises in the High-street:—
*G. S. Lewis & Bros., Castle-street, Reading ..... £4,510

**Felling-on-Tyne.**—Erection of the Joseph Hooper Memorial Homes, for the Durham Aged Mineworkers' Homes Association at Windy Nook. Mr. F. Willey, F.R.I.B.A., architect, Durham:—
*G. Dyson, Pelton, Durham ..... £6,392

**Gloucester.**—Extensions and improvements to the premises of Messrs. Dentons, Ltd. Messrs. Stratton Davies, Yeates & Dolman, F. & L. & A.R.I.B.A., architects, 12, Queen-street:—
*W. T. Nicholls, Ltd., Gloucester.

**Great Yarmouth.**—Rebuilding of the flour mill of Messrs. R. H. Clarke, Ltd., Southdown. Messrs. Brown & Burgess, architects, 9, Arcade-street, Ipswich:—
*G. Beech, Great Yarmouth.
*Steelwork*—*Archibald D. Dawnay & Sons, Ltd. London.

**Halifax.**—Schools for St. Mary's Church, Wheatley. Mr. Blythe Richardson, L.R.I.B.A., architect, 26, Printing Office-street, Doncaster:—
*Geo. T. Farrow, Doncaster.

**Hounslow.**—Bronze shop fronts, etc., to the showrooms at Neals-corner, Bath and Staines-roads, for the Heston and Isleworth U.D.C. Mr. J. G. Carey, surveyor:—
*A. Davis & Co., Ltd., Horn-lane, Acton, W ..... £1,227

**Hull.**—Motor house and shelter for the waterchute, at Ferens Boating Lake, East Park, for the T.C. Mr. T. Thomas, City Engineer:—
*City Engineer.

**Hunslet.**—Rebuilding of the District Nurses' Home, in Low-road, Hunslet:—
*H. Atkinson & Sons, Ltd.

**Inverurie.**—Restore and enlarge Town Hall and offices. Mr. G. Gray, architect:—
*Mason work*—
*J. Ross, Oldmeldrum ..... £1,876 3 6
*Carpenter*—
*J. B. Craig, Kintore ..... 1,300 0 0
*Plumbers*—
*J. Laing & Sons, Inverurie ..... 575 0 0
*Plasterer*—
*R. Murdoch, Inverurie ..... 524 14 8
*Slater*—
*W. Middleton, Inverurie ..... 447 17 7
*Painter*—
*G. Sangster, Inverurie ..... 154 3 6
*Steelwork*—
*G. Bisset & Son, Aberdeen ..... 334 0 0
*Heating*—
*J. Laing & Sons, Inverurie ..... 409 0 0

**Ipswich.**—"New Hotel" in Clapgate-lane. Mr. Wm. Stewart, F.R.I.B.A., architect, 4, Aldgate, E.1.:—
* F. R. Hippersen, Norwich.

**Ireland.**—The following contracts have been placed by the Commissioners of Public Works:—
*Baldonnel Aerodrome, new officers' quarters*—
*Meagher & Hayes, Drinan-street, Cork.
*Colaiste Ide, Dingle heating, lighting and water services*—*Maguire & Gatchell, Ltd., Dublin.
*Four Courts, Dublin, hot water service*—*Haden Engineering Co., Ltd., Dublin.
*Limerick Post Office, alterations*—*C. Powderly, Limerick.

**Keighley.**—Almshouses, at Oakworth. Mr. A. P. Harrison, architect, High-close, Highfields-lane:—
*Mason*—*Albert Sharp, Oakworth.
*Joiners*—*S. Bland & Son, Oakworth.
*Plumbers*—*E. Speight & Sons, Oakworth.
*Plasterers*—*Wright, Harris, Keighley.
*Painters*—*Eldon & Dean, Keighley.
*Slaters*—*Hill & Nelson, Bradford.

**Lancaster.**—Shops and offices in connection with the above improvements in Market-street and King-street, for the Corporation. Mr. F. Hill, Borough Surveyor:—
*W. & I. Piell, Lancaster.

**Lancaster.**—80 houses on a site adjoining Beaumont Hall Green-lane, Skerton, for the Corporation. Mr. F. Hill, Borough Surveyor:—
*F. Moore & Co., Morecambe ..... £15,900

**Leeds.**—176 flats and 4 houses on the Middleton housing estate, for the T.C. Mr. J. E. Aefield, City Engineer:—
*F. Clough, Thornfield, West Ardsley, Wakefield ..... £50,564 2

**Leeds.**—Reconstruction of shop premises in Briggate, for Messrs. J. Sears & Co., Ltd. Mr. F. H. Allen, architect, Northampton:—
*Wm. Thompson & Sons, Ltd.

**Leeds.**—Alterations and additions to the "Cardigan Arms," Kirkstall-road, for Messrs. J. Tetley & Sons, Ltd., The Brewery. Messrs. Kitson, Parish & Ledgard, architects:—
*B. Coates & Son.

**Leicester.**—Orthopædic clinic:—
*H. Herbert & Sons, Leicester ..... £3,135

**Lincoln.**—Rectory in Otby-road, Walesby, for the Parish Church. Mr. G. Watkins, F.R.I.B.A., architect, St. Edmund's-chambers, Bank-street, Lincoln:—
*Scupham & Son, Market Rasen.

**Llandilo**—Certain alterations and improvements at the Cattle Market, for the U.D.C. Mr. T. G. Price, architect, Rhosmaen-street:—

| | |
|---|---|
| T. Evans, Windsor-road, Neath ..... | £2,300 |
| Rhys Rees, Greenhall, Llandilo ..... | 2,095 |
| Evans & Davies, Llandilo ..... | 2,080 |
| Charles Thomas & Co., Llandilo ..... | 1,990 |

**London.**—Interior painting and decoration work at the Newlands and Sunray estates, for the Camberwell B.C.:—

| | |
|---|---|
| Woodbridge & Co. ..... | £697 7 8 |
| Byfield & Co. ..... | 215 18 7 |
| Westbourne Decorating Co. ..... | 195 14 0 |
| E. A. Wickes & Co. ..... | 167 4 6 |
| H. N. Steel ..... | 160 0 6 |
| Arundel, Ltd. ..... | 136 15 0 |
| The Mond Staffs Refining Co., Ltd. | 101 4 10 |
| R. H. Blackmore, 88, King's-road, Chelsea ..... | 99 13 7 |

(All of London.)

**London.**—Elementary school on site 2 at Grove-park, for the L.C.C.:—

| | |
|---|---|
| Triggs & Co., Ltd. ..... | £10,893 |
| Holliday & Greenwood, Ltd. ..... | 10,874 |
| Thomas & Edge ..... | 10,785 |
| Higgs & Hill, Ltd. ..... | 10,540 |
| H. Kent ..... | 10,488 |
| J. & C. Bowyer, Ltd. ..... | 10,210 |
| Thomas D. Leng ..... | 10,188 |
| R. Mansell ..... | 10,125 |
| J. Garrett & Son, Ltd. ..... | 9,933 |
| G. E. Wallis & Sons, Ltd., Maidstone | 9,789 |
| L. H. & R. Roberts ..... | 9,690 |
| W. H. Gaze & Sons, Ltd. ..... | 9,663 |
| Albert Monk ..... | 9,660 |
| C. P. Roberts & Co., Ltd. ..... | 9,650 |
| Galbraith Brothers, Ltd. ..... | 9,466 |
| F. R. Hipperson ..... | 9,157 |
| J. W. Ellingham, Ltd., Dartford..... | 9,397 |
| Architect's estimate ..... | 9,755 |

(All of London.)

**London.**—Nurses' home at Long Grove mental hospital, for the L.C.C.:—

| | |
|---|---|
| James Bodle, Ltd., Eastbourne ..... | £18,998 |
| James Longley & Co., Ltd., Crawley | 18,849 |
| Albert Monk, Edmonton ..... | 17,595 |
| John Garrett & Son, Ltd., London... | 17,4[illegible] |
| Walter Lawrence & Son, Ltd., London | 17,484 |
| Cropley Brothers, Ltd., Epsom ..... | 17,400 |
| Prestige & Co., Ltd. ..... | 17,376 |
| W. H. Gaze & Son, Ltd., Kingston-on-Thames ..... | 16,973 |
| C. P. Roberts & Co., Ltd., London... | 16,875 |
| G. E. Wallis & Sons, Ltd., Maidstone | 16,678 |
| H. H. & F. Roll, Epsom ..... | 16,551 |
| R. Cook & Sons, Ltd., Crawley ..... | 16,456 |
| J. Crewdson, Horley ..... | 16,462 |
| Leslie & Co., Ltd., London ..... | 16,[illegible]34 |
| Wilson Lovatt & Sons, Ltd., Wolverhampton ..... | 16,[illegible]39 |
| *J. W. Ellingham, Ltd., Dartford ..... | 15,[illegible]00 |
| Architect's estimate ..... | 17,247 |

**London.**—Block of offices on the site of Nos. 57-63, Bishopsgate. Messrs. Joseph, architects, 2, Paul's Bakehouse-court, E.C.4:—
*Contractors*—*Higgs & Hills, Ltd., London.
*Tiling*—*Carter & Co., Ltd., London.
*Fireproof Floors*—*Caxton Floors, Ltd., London.
*Artesian Wells*—*C. Isler & Co., Ltd., London.
*Demolition*—*W. Marshall, Ltd., London.
*Steelwork*—*Powers & Deane Ransome's, Ltd., London.
*Stonework*—*South-Western Stone Co., London.

**London.**—Rebuilding of 63, Mansell-street. Messrs. Lewis Soloman & Son, architects, 21, Hart-street, Bloomsbury, W.C.1. Messrs. H. Gritten & Son, quantity surveyors, 21, Hart-street, Bloomsbury, W.C.1.:—

| | |
|---|---|
| James Carmichael (Contractors), Ltd. | £32,818 |
| Trollope & Colls, Ltd. ..... | 32,366 |
| H. L. Holloway & Son ..... | 32,160 |
| Ashby & Horner, Ltd. ..... | 31,990 |
| Hall, Beddall & Co., Ltd. ..... | 31,900 |
| F. & F. H. Higgs, Ltd. ..... | 31,713 |
| Horace V. Clogg ..... | 31,447 |
| Jennings & Sons ..... | 31,225 |
| *Bovis (1928), Ltd. ..... | 31,087 |
| Henry Kent ..... | 31,030 |
| C. P. Roberts & Co., Ltd. ..... | 30,750 |

(All of London.)

**London.**—Showrooms and offices, for the Gas Light & Coke Co., Ltd., in Oxford-street, W. Mr. W. H. White, F.R.I.B.A., architect, 14a, Cavendish-street, W.1.:—
*Asphalte*—*London Asphalte Co., Ltd., London.
*Plumbing*—*Matthew Hall & Co., Ltd., London.

**Louth.**—Additions and alterations to Kidgate school, for the Lindsey C.C. Messrs. Scorer, Gamble & Co., architects, Bank-street-chambers, Lincoln:—

| | |
|---|---|
| G. W. Horton & Son, Horncastle | £6,418 19 |
| Jackson & Oates, Goole ..... | 5,384 0 |
| Ingram Bros., Louth ..... | 5,110 2 |
| R. M. Phillips, Brigg ..... | 5,060 0 |
| Mawer Bros., Louth ..... | 4,997 0 |
| E. E. Dale & Sons, Ltd., Cleethorpes ..... | 4,968 18 |
| *J. Tuxworth & Sons, Louth ..... | 4,633 0 |

**Manchester.**—House at Limbrick, near Chorley, for the T.C. Engineer, Waterworks Offices:—
*J. W. Lee, Ltd., Chorley.

**Manchester.**—Shelter in Debdale recreation ground, for the Corporation. Mr. H. Price, A.R.I.B.A., City Architect:—
*W. Richardson & Co., Gorton.

**Manchester.**—Additions to the Medical Superintendent's house at Monsall Hospital, for the Corporation. Mr. H. Price, A.R.I.B.A., City Architect:—
*Fearnley & Sons, Salford.
*Masonry*—*J. E. Moores, Ardwick.
*Slating*—*J. Valentine & Sons, Eccles.
*Plumbing, Glazing and Gasfitting*—*James Gill, Hulme.
*Plastering and Painting*—*F. & J. Pilling Bros., Ardwick.

**Manchester.**—Extensions to the premises at 338 and 340, Stockport-road, Longsight, for Messrs. Rydings Reliance, Ltd. Messrs. Adshead, Topham & Adshead, A.R.I.B.A., 14, St. Ann's-square:—
*S. Megarity & Co., Manchester.

**Manchester.**—Refronting scheme and improvements to the "Talbot Hotel," Bold-street, and Sloane-street, Moss Side, for Messrs. Wilson's Brewery Co., Ltd., Newton Heath. Mr. F. Riley, A.R.I.B.A. (Messrs. Brameld & Smith, architects), County Chambers, 4, Cannon-street, Manchester:—
*T. Campion & Son, Ardwick.
*Plasterers and Cement work*—*A. & S. Wallace, Newton Heath.
*Terra Cotta*—*Shaws, Ltd., Darwen.
*Embossed Glass*—*Harling & Watson, Manchester.
*Plumbers*—*A. Longworth & Sons, Manchester.

**Manchester.**—Gymnasium at the Levenshulme High School for Girls, for the E.C.:—
*Smith & Briggs, Ltd., Manchester.
*Roof Tilers*—*Manchester Slate Co., Ltd., Swinton.
*Plumbers*—*Turton & Sons, Manchester.
*Plasterers and Painters*—*Jones & Jackson, Ltd., Manchester.

**Manchester.**—Erection of the Moston Municipal School, for the E.C. Mr. H. Price, A.R.I.B.A., City Architect:—
*S. & J. Smethurst, Ltd., Oldham.
*Steelwork*—*Edward Wood & Co., Ltd., Trafford Park.
*Masons*—*S. & J. Whitehead, Oldham.
*Slaters*—*E. Turner & Son, Failworth.

**Manchester.**—Hangar and workshop at the Chat Moss Aerodrome, for the Committee:—
*E. Marshall & Sons, Ashton-under-Lyne ..... £22,500

**Nelson.**—Erection of the new St. Bede's Church in Railway-street, for the Rev. J. Milner. Mr. Richard Jaques, A.R.I.B.A., architect, 37, Railway-street:—
*T. Dent & Sons, Nelson.
*Reinforced Concrete*—*Mullen & Durkin, Ltd., Burnley.
*Joiners*—*Raffles Brothers, Ltd., Nelson.
*Slaters*—*Stanworth & Sons, Ltd., Burnley.
*Plasterers*—*Rawlinson & Sons, Burnley.
*Plumber*—*Herbert Craven, Nelson.

**Newcastle-on-Tyne.**—Additions and extensions to the nurse's home of the Victoria Infirmary, Queen Victoria-road. Messrs. Newcombe & Newcombe, F. & A.R.I.B.A., architects:—
*A. Anderson, Newcastle-on-Tyne.

**Newcastle-on-Tyne.**—Extensions and improvements to the premises of Messrs. Chapman & Co., Northumberland-street. Mr. Marcus K. Glass, F.R.I.B.A., architect, 20, Saville-row:—
*W. Hall, Gateshead.
*Steelwork*—*Anderson Wright & Co., Ltd., Gateshead.

**Newton Abbott.**—Premises at Nos. 10-10a, Courtenay-street, for Messrs. Marks & Spencers, Ltd., Chiswell-street, E.C.1. Mr. A. E. Batzer, A.R.I.B.A, architect, 36, Ebury-street, Victoria, S.W.1. Messrs. Gleed, Sons & Co., quantity surveyors, 8, Martin's-lane, E.C.4:—
*Building*—*Bovis (1928), Ltd.
*Steelwork*—*Moreland, Hayne & Co., Ltd.
*Asphalte*—*Ragusa Asphalte Co., Ltd:
*Artificial Stonework* — *Patent Impervious Stone and Construction Co., Ltd.
(All of London.)

**Northallerton.**—Extension of the County Hall, for the North Riding of Yorkshire E.C. Mr. J. R. White, architect, County Hall, Northallerton. Quantities by Messrs. T. Priestley & Sons, Oxford-chambers, Victoria-square, Leeds:—
*Armitage & Hodgson, Camp-road Mills, Leeds.

**Nottingham.**—Internal and external painting at the City Isolation Hospital, Bagthorpe, for the T.C. Mr. T. Wallis Gordon, City Engineer and Surveyor:—
*J. H. Selby, 94, Carlton-road, Nottingham.

**Nottingham.**—Dance hall to replace the Victoria Halls in Talbot-road. Messrs. Evans, Clark & Wollat, architects, Wheeler-gate:—
*Plumbers*—*The Midland Plumbing Co., Ltd., Nottingham.
*Plasterers*—*The Midland Plastering Co., Ltd., Nottingham.
*Flooring*—*Hollis Bros. Co., Ltd., Hull.
*Steelwork*—*G. Sands & Son, Ltd., Nottingham.
*Artificial Stone*—*Trent Concrete, Ltd., Nottingham.
*Marble Terrazzo*—*E. Decara & Son, Nottingham.
*Painter and Decorator*—*Tom Monks, Nottingham.

**Oldbury.**—Public house at the corner of Queen's-road and Basin's-lane. Messrs. Wood & Kendrick & Edwin F. Reynolds, architects, 315, High-street, West Bromwich:—
*John Dallow & Son, Blackheath, Staffs.

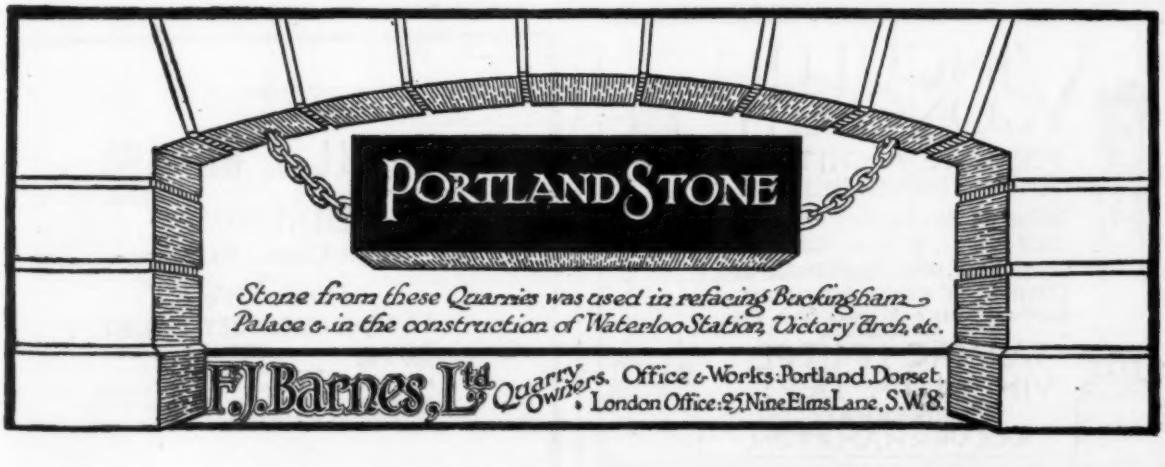
**Rooth.**—Police station, for the North Riding Standing Joint Committee:—
*Moody Bros., Northallerton ... £2,948 19 6

**Rotherham.**—40 houses and also roads at Thrybergh, for the U.D.C. Mr. C. I. Rawstron, surveyor:—
*Houses and roads*—
*R. Snell & Sons, Ltd., Rotherham £12,660
*Electric fittings*—
*F. L. Smith, Rotherham ..... 173

**Salford.**—Improvements to the Town Hall Tavern, Ford-street, for Messrs. Chester's Brewery, Ltd., Ardwick, Manchester. Mr. F. Riley, A.R.I.B.A., of Messrs. Brameld & Smith, architects, 4, Cannon street, Manchester:—
*Thomas Campion & Sons, Manchester.

**Scarborough.**—Conversion of the Mechanics' Institute into a temporary free library building, for the Corporation:—
*T. Jaram & Sons, Scarborough ..... £2,889

**Sheffield.**—Pump house at Rivelin, for the T.C. Mr. W. Geo. Davies, F.R.I.B.A., City Architect:—
*Abbott & Bannister, Ltd., Machon Bank, Sheffield ..... £3,088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**Sheffield.**—Council school at Earldom-road, for the T.C. Mr. W. Geo. Davies, F.R.I.B.A., City Architect :—
*Abbott & Bannister, Ltd, Machonbank, Sheffield ..... £33,129

**Sheffield.**—148 non-parlour houses on the Wisewood estate, for the T.C. Mr. W. Geo. Davies, F.R.I.B.A., City Architect :—
*M. J. Gleeson, Ltd., 822, Chesterfield-road, Sheffield .....(65) £23,952 10
*R. T. Hinchliffe & Sons, Ltd., 536, Prince of Wales-road, Sheffield ..... (83) 30,325 1

**Sheffield.**—Workshops for the blind, at Sharrow, for the Health Committee. Mr. W Geo Davies, City Architect :—
*T. Roper & Sons, Ltd., Mowbray-street, Sheffield ..... £27,356

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**Sheffield.**—14 houses on Chesterfield-road, Woodseats, to be known as the Douglas Haig Memorial Homes, for the Haig Trustees. Messrs. Hadfield & Cawkwell, architects, 19, St. James-street, in collaboration with Mr. G. G. Warnum (Messrs. de Soissons and Warnum) of London, architects :—
*Henry Boot & Sons, Ltd., Sheffield ... £8,560

**Smallburgh.**—For (*a*) two pairs of cottages at East Ruston, and (*b*) pair at East Ruston, for the R.D.C. :—
(*a*)—
*Wm. Mace & Bros., North Walsham, Norwich ..... £1,320 0
(*b*)—
*Jas. Baker, Catfield, Great Yarmouth ..... 668 10

**Southampton.**—Congregational Church at Chandler's Fort. Mr. Harry Collins, F.R.I.B.A., architect, Portland-street :—
*Musselwhite & Son, Basingstoke.

**Southend-on-Sea.**—Cycle shed and games store at Westcliff High School for Boys, Eastwood-lane for the E.C. Mr. F. W. Smith, A.R.I.B.A., Architect to Education Committee :—
*J. O. Matthews, 109, Woodfield Park-drive, Leigh-on-Sea ..... £422 12 11

**Stoke-on-Trent.**—For overhead wiring and services, for T.C. : (1) 58 houses, Sutton estate ; (2) 16 houses, Eaton-street ; (3) 110 houses, Cornhill ; and (4) 73 houses, Hanford. City Electrical Engineer, St. George's-chambers. Mr. C. H. Yeaman, Chief Electrical Engineer, St. George's-chambers, Kingsway :—
(1)—
*Barnett & Soans, Church-street, Stoke-on-Trent ..... £183 18 2
(2)—
*Barnett & Soans, Church-street, Stoke-on-Trent ..... 43 11 9
(3)—
*E. Holloway, Stoke-on-Trent ..... 359 17 6
(4)—
*Tomlins, Ltd., Tunstall ..... 229 12 6

**Strood.**—Four bungalow cottages in Petticoat-lane, Chalk, for the R.D.C. Mr. L. Randerson, Building Surveyor :—
*D. Waterman, Chatham ..... £1,296

**Swinton.**—Chapel at Stratton St. Margaret. Mr. Robert James Beswick, M.S.A., architect, 10, Victoria-road :—
*Building and Public Works Construction Co., Ltd., Swinton.

**Walsall.**—50 non-parlour type houses at Blakenall, for the T.C. :—
‡A. Smith, Bloxwich ..... £13,269

**Walsall.**—Council school in Ida-road, for the T.C. Mr. J. Taylor, Borough Surveyor :—
*J. R. Deacon, Walsall (Staffs) ..... £28,000

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**Wimborn and Cranborne.**—Houses, for the R.D.C. :—
*Six, Colehill*—
*A. Dawkins, Ringwood ..... £2,206
*Six Corfe Mullen*—
*A. Griffin, Broadstone ..... 2,167
*Eight, Hampreston*—
*A. Dawkins ..... 2,918
*Six, Sixpenny Handley*—
*H. Dibben, Handley ..... 2,409
*Four, Sturminster Marshall*—
*E. Pulker, Corfe Mullen ..... 1,580
*Four, Verwood*—
*Sims Bros., Verwood ..... 1,200
*Four, Witchampton*—
*J. Francis, Bournemouth ..... 1,589
*Four, Woodlands*—
*P. Bailey, Verwood ..... 1,300

**Woodstock.**—12 non-parlour type houses and 8 parlour type houses at Hensington, for the R.D.C. Mr. C. W. Page, surveyor, Horse Fair—
*Wastie Brothers, Handborough, Oxon £7,980

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